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Colonel Pope and Good Roads.

COLONEL ALFRED A. POPE is sending out to the newspapers a circular letter urging the people of the country to petition Congress for the establishment of a Road Department and Institute of Road Engineering and a permanent road-exhibit in Washington city, and a comprehensive exhibit of road construction and maintenance at the World's Columbian Exposition. There is nobody in this country who needs any argument in regard to the importance and value of good roads. The making of roads is the first step in the civilization of a new country, one of the first subjects of legislation, and the first object of taxation. The trouble with regard to roads in America is not that their importance is under estimated, or that no attention is given to the subject. The trouble is in a lack of knowledge in dealing with road-construction. Whether or not this is going to be obviated by any action that Congress may take is extremely doubtful. The tendency in all such matters is that as soon as Congress or the legislatures undertake any work of public utility, every private individual at once begins to feel that the responsibility has been shifted from his shoulders, and that nothing remains but to stand aside and permit the public authorities to give him what he wants. One reason that we have few good roads is that few persons need to use them continuously, and a trip over an exceedingly bad road may be borne more readily if the traveler reflects that the experience will not have to be repeated at once. Otherwise, everybody who traveled over bad roads might be moved to immediate exertion to secure their improvement. Colonel Pope, the enterprising president of the Pope Manufacturing Co., who is doing so much to extend the use of bicycle-riding in every State and almost every county of the Union, is doing more in a practical way to secure the improvement of roads than all the literature that could be printed by a Government department. As for a permanent road-exhibit in the city of Washington, it would seldom be seen by farmers or those who do most of the traveling over the bad roads of the country. The bicycle, however, goes to every hamlet and into nearly every path, and as the bicyclist is usually young, enthusiastic, and enterprising, if his class will only take up the work of urging that the roads be improved, there is more hope for the roads of the country than from any other direction of which we are aware. More power, then, to Colonel Pope's efforts in the direction of road improvement, but let them be confined to the energetic pushing of his private business—which is bound to have a helpful effect upon the roads—rather than to hopeless attempts to accomplish his purpose through the machinery of politics, which must necessarily absorb more money in salaries than will be expended on the highways.

Rubber Tires for Road-Wagons.

IT is interesting to notice that so good an authority as Mr. A. H. Alden, an interview with whom appears in another part of this paper, refers to the manufacture of

rubber tires as affording at present one of the most important channels for the extension of rubber-manufacture. Indications of this character have not been wanting for several months past, as readers of THE INDIA RUBBER WORLD must have seen from its columns. No line of manufacture in recent years has expanded more rapidly than the production of bicycles, and it seems that no early diminution in the output is to be expected in any quarter. What lends importance to this industry in the eyes of the rubber trade is the fact that no new machines are being made without rubber tires. It is likewise important to note that purchasers of wheels are willing usually to give good prices for them, and that neither a poor quality of rubber nor a shortage of rubber in tires will be tolerated. The meaning then is that we shall have a constantly-growing production of wheels, calling for the best qualities of rubber and that in good proportions. The use of rubber tires, however, is not by any means confined to the bicycle. The editor of THE INDIA RUBBER WORLD is in receipt of a letter from Messrs. J. B. Brewster & Co., the most celebrated carriage-manufacturers in New York, who have made recently several pneumatic tires for road-wagons, some of which are illustrated in another part of this journal, including that for Mr. Peter Cooper Hewitt, which is to be presented to Mr. Hewitt's father-in-law, Mr. Frank Work, of New York. Neither is the rubber tire for vehicles to be confined to the pneumatic form. To quote from the letter of Messrs. Brewster & Co.:

"We are getting up, or rather putting on, the ordinary rubber tire on wagons, that we think will be a success. It will be inexpensive compared to the pneumatic tire, and more desirable for wagons. It can be put on any ordinary wagon, no matter how much the tire has been worn. We do not care for any spring in the rubber tire, for the springs in the wagon are sufficient, though it may be necessary in a bicycle, which has no springs. We have used these rubber tires on our business-wagons for a month."

Notwithstanding the widespread agitation of the subject of good roads, there are now actually in existence in this country many thousands of miles of roads suited for the use of rubber tires, to say nothing of the rapid extension of asphalt-paving in our cities, which may be expected to be followed rapidly by the use of rubber tires for both pleasure-vehicles and business-wagons. It is easy to see, if the introduction of rubber tires has added so largely to the demand for rubber of a good quality, that when rubber tires begin to be used on road-wagons and carriages the field for the consumption of rubber will be immensely increased. It seems to us that there is to-day no field for the extension of the mechanical rubber-goods trade more promising than in connection with the tire industry.

THE United States Collectors of Customs at points on the borders of Canada and Mexico have received instructions from the Treasury Department to put into effect the new law providing for the collection of statistics of domestic exports by railroads from the United States into the neighboring countries. For a long time the United States has not had credit for the full volume of its exports for reason that no effort was made to keep an account of exports other than those by sea-going vessels. There is reason to believe that the exports to Canada of rubber goods, for example, have been very large, and it will be of interest to the trade to have the amount of these exports added to what is now recorded as going by way of steamers to both Canada and Mexico.

Death of Joseph Whitehead.

JOSEPH WHITEHEAD died at his residence, No. 247 Greenwood avenue, Trenton, N. J., on November 8, aged sixty-three years. Mr. Whitehead was born at Hatboro, Montgomery county, Pa., in 1829. In 1845 he went to Trenton with his father, upon whose death, in 1852, he became one of the firm of Whitehead Brothers, successors to John Whitehead & Sons, manufacturers of woolen goods, where the Whitehead Brothers rubber works are now located. After the war the works were closed for a time, and some time in the early part of 1869 Mr. Whitehead, in company with his brothers, William, John, Richard, and James, changed the factory to a rubber mill, and engaged in the manufacture of mechanical rubber goods, being among the very first to engage in that branch of manufacturing in the city of Trenton. Mr. Whitehead severed his connection with the firm of Whitehead Brothers in 1880, and took an interest in the Hamilton rubber works, conducted by a stock company, of which Mr. Whitehead was made president, a position which he retained up to the time of his death. He was of English extraction, his father emigrating to this country about the time machinery began to be introduced for weaving cloth. The opposition of the operatives to the introduction of machinery was so great that the elder Whitehead determined to seek the new world, where his enterprise and ambition could have full scope. He settled in Hatboro, where Joseph was born, as above stated. Mr. Whitehead was of a retiring disposition and never sought publicity; neither did he take any active part in politics. He was one of the original directors of the First National Bank of Trenton, and was the only surviving member of that board at his death. His health had been failing for more than a year, and for three months prior to his death he had been confined to his home.

The Rubber Pencil-Tip Business Growing.

THE Joseph Dixon Crucible Co. (Jersey City, N. J.), the extensive lead-pencil manufacturers, have bought their rubber pencil-tips hitherto from another manufacturer, having them made by contract. They advise THE INDIA RUBBER WORLD that: "The time has now come when we feel that the work can be quite as well if not better accomplished under our own roofs and under our own personal supervision. We therefore shall probably establish a rubber-manufacturing plant. As the pencil business is largely increasing with the growth of the country, those pencils that carry some form of a rubber attachment also increase in sale with the other makes."

THE Washington Rubber Co. have been incorporated at Seattle, Wash., with $21,000 capital. The incorporators are Thomas F. Basse, Otto Richter, and Franz Richter.

THE AMERICAN RUBBER TRADE IN 1892.

AT the end of 1891 the rubber market, which during the spring and summer previous had been thrown into an abnormal condition by the manipulation of Baron de Gondoriz, had assumed a state more in accordance with the laws of supply and demand. Manufacturers had then placed themselves in a position much more comfortable to contemplate than they had found themselves in in the earlier months. The arrivals at the beginning of the year were large, and under their influence the market assumed later on an apathetic tone, getting into a rut from which it was difficult to lift it. As the season progressed much was made of what was believed to be a short supply on the Amazon, and internal disturbances ever present in Brazil, with fluctuating exchange, occasionally caused a ripple in prices. During August and September future sales were large, a good many of them by importers who felt inclined to disregard the extreme assertions of those who believed in the very strong statistical position then supposed to exist; and while prices could not be said to have boomed, still the profits in those transactions were good for some of the intermediaries in the trade. Later on the cholera-scare had its effect, but it was of a temporary nature, more annoying to shipowners than to the trade.

The receipts in the last month of the year kept up generously, and although statistics have not at the moment been fully compiled, they will probably bear out the assertion that they were about those of the previous year. Consumption has kept up in the same proportion,—perhaps 5 per cent. more. Centrals have shown some scarcity at times during the year, compelling an economy in the use of some choice grades. An order for 10,000 pounds of Esmeralda at the close of the year could probably not be completely filled for less than $1 per pound. The South and Central American fields are growing in extent, and more and more attention will be given to new sources of supply in the near future. Importers say that a growing demand for the better grades of Africans is apparent.

Gutta-percha has shown little animation during the year, slight activities being noticeable at the beginning and close of the period. Prices are hard to name, the range to make a trade being so wide as to prevent a record. It has declined somewhat during the year.

A few consignments of Balata have been received direct from South America, but Venezuela has hardly been in a condition to do much in the commercial line. Chicle comes forward in good proportions from Mexican ports, but finds its chief market among the lovers of chewing-gum.

In mechanical goods the year has been one of a large volume of business and of a fair margin of profit. It has been a very good year for fire-hose, for those who sell to railroads, to those who have connections in the grain districts, and to those who can influence the business of manufacturers. For specialties it has been very fair. The railroads have made large additions to their equipment, and have very extensively adopted the air brake and steam car-heating. They have also adopted gas-lighting on trains. In the grain districts great crops were produced, and elevators and threshing-machines were equipped as never before. More machinery was made and tools turned out than ever before, and mill-supply men sold largely. The wringer companies combined, and an extensive central plant has been perfected. The mechanical companies, three of them, have formed a large corporation, and the organization is now perfected.

The bicycle-men bid fair to be enormous consumers of rubber this season. Manufactories are starting up in every direction, and the pneumatic tire, which is popular, consumes a large amount of the best of Pará. Bicycle-sulkies are becoming popular, and may be a factor in the year's trade.

In insulated-wire goods the year has been a prosperous one. Some very large contracts have been made for the World's Fair, and in smaller public buildings the demand has been very large. While electricity does not displace gas by any means, it is rapidly encroaching upon it. The consumption of small articles, such as basin-plugs, jar-rings, gas-stove hose, etc., is constantly on the increase.

In the clothing trade a large ray of sunshine has beamed upon all concerned. The condition of the weather has been the prime cause of this return to prosperity. In this business competition is growing rapidly, and foreign goods under Tariff rulings are beginning to be a factor in the market. As there is little chance for any improvement in this direction, domestic manufacturers are hoping that in the whirligig of revision free wool may be a help; still the way is not plain, as the factor of labor will still remain. Some manufacturers are commencing to claim that they will have now to purchase their cloths abroad, making them up here to obtain the intent of the Tariff, and our styles and makes are better calculated to suit the popular fancy. The introduction of waterproofed goods in which rubber does not form a part is becoming more of a factor. At the moment cloth-men, however, are very sanguine of the future.

In the boot-and-shoe business there have been many distinguishing features. At the close of 1891 there were many indications that the present season would be a prosperous one. At the beginning of the year there were many contracts unfilled, warm goods which are not readily made for a sudden demand could not be had, and everything looked pleasant for the whole chain of tradesmen between the factory and the retail counter. There was a lull in the early spring, but the weather turned very favorable for rubber-men, if it was not so for the public, and as retailers had been educated up to the idea of keeping light stocks, the demand became a pressing one. Discounts were larger, however, and in this business as well as in most others a small margin of profit has been the

rule. The tennis-shoe business during the year has swollen to immense proportions, and the comfort with which these shoes are worn has set the boot-and-shoe people in leather goods to put russets and other light footwear on the market. So thoroughly has this been done that some shrewd judges maintain that the tennis-shoe has passed its zenith of popularity and will give way to other goods. There is a noticeable growing demand for rubber soles for leather shoes for yachting and other purposes, which may yet become a large trade.

The event of the year was however the amalgamation of a dozen or more shoe-companies into one mammoth corporation. The results of this have not yet appeared to a large extent, but the organization has been successfully completed, and one of its aims—that of improving the standard of quality—is in a fair way to be achieved. The outlook for the coming year is considered excellent. There are many discouraging features in the financial and political world which have been potent for some time, but the boot-and-shoe business, as well as many others dependent upon purchases by the people at large, seems to safely ride over any disturbing factor of the character indicated.

DEATH OF JOHN VAN D. REED.

JOHN VAN DUSSEN REED, president of the Eureka Fire Hose Co., died in Paris, France, on November 26. Mr. Reed had not been well for some time, but he possessed such an indomitable energy that few even of his intimate associates knew that he was not in possession of rugged health. Mr. Reed left New York on November 2 for the purpose of spending the holiday season with his family, who were residing in Paris, intending to return immediately after January 1, and devote his energies to the advancement of the interests of the company of which he was president. He suffered severely on the passage across the ocean and immediately on his arrival in Paris took to his bed, from which he never arose. Funeral services were held at the American Chapel in Paris, and his remains will be brought to his native land for interment.

Mr. Reed was born in New York on April 26, 1838. He was married to Miss M. L. Mitchell, a daughter of Mr. Samuel L. Mitchell, for many years a very prominent shipping merchant of New York. Mrs. Reed and three daughters survive to mourn the loss of a devoted husband and father.

Mr. Reed first became interested in circular weaving machinery in 1869. His father, Mr. Almet Reed, before that date had retired from a mercantile life with a competency, but possessing the same dislike of inactivity that characterized the son he soon turned his attention to machinery, and finally, with Mr. P. L. Slayton, produced a loom for weaving hats.

Mr. Almet Reed and other gentlemen who became associated with him provided a considerable capital for the purpose of building and operating these looms, but with this increase of facilities the management passed partially from Mr. Reed's hands, and a too-rapid expansion caused a failure of the enterprise. Mr. J. Van D. Reed, believing yet that the looms had merit, bought one of them, and took it to London for a further trial. Mr. B. L. Stowe, now treasurer of the Eureka Fire Hose Co., and who was associated with Mr. Reed from that time until Mr. Reed's death, went with him as an expert operator.

Improvements were made on the loom, and Mr. J. Van D. Reed then contracted with a firm of machinists to build ten of them, it being stipulated that the ten should be completed within eight months, but the firm referred to at that time had a manager who was either dishonest or incompetent, and although Mr. Reed in his endeavors to procure looms paid to them sums of money equal to the contract price of several looms, no loom was produced for nearly two and a half years. In justice to that firm it should be said that they removed their manager, replacing him with one who was as honorable and competent as the former one had been incompetent, but the delay had proved fatal to Mr. Reed's plans, as the financial stringency of the early "seventies" rendered the launching of a new enterprise undesirable, if not impossible, and the contractors were not required to complete their contract.

Mr. Reed was called back to New York by other duties in 1873, and in 1874 Mr. Stowe, after years of tiresome waiting for the looms, also returned and the project was abandoned. The time had not been entirely lost, however, as many alterations had been made in the loom taken from the States, and many experiments tried. During this period Mr. J. Van D. Reed first saw samples of what was know as the Boyd rivetted hose, which hose consisted of an originally flat-woven cotton fabric, that was folded longitudinally into a cylindrical form, and had its edges riveted together forming a tube. He was at once impressed with the desirability of producing a similar hose, but without the riveted seam, and which should consist of a seamless multi-ply woven tubular fabric.

Notwithstanding the lack of success that had thus far attended his efforts, Mr. J. Van D. Reed still believed that circular looms possessed merit, and therefore in the autumn of 1874 he procured another one of the hat-looms, and such alterations were made in it as were needed to demonstrate that the desired hose fabric could be woven, and early in 1875 it was woven;—a rough and unsightly sample, but good enough to warrant the building of suitable looms for producing it. Such looms were built, and in the autumn of 1875 the first 50-foot section of seamless-woven multi-ply hose fabric was produced.

Mr. Junius Schenck, who about that time became identified with the enterprise, used that first section as a sample and procured from the New York Fire Department an order for 5000 feet of "Eureka," as the new hose was called, the company being unable from lack of sufficient machinery to accept the full order for 20,000 feet that was tendered them.

The Eureka Fire Hose Co. was incorporated in 1875, Colonel Richard Vose becoming the president, and Mr. Junius Schenck the general selling-agent, and later its vice-president. Mr. Schenck has also died during the past year. Mr. Reed at all times owned a controlling interest in the company, and it was always his aim as well as the intent of those about him to secure the highest standard of excellence for the productions of that company.

A new and thoroughly-equipped factory has recently been built, and it was Mr. Reed's intention, had his life been spared, during the coming year to make personal visits to as many as possible of those interested in the sale of goods produced by the company, and by consultation to learn in what way the interest of all might be conserved and the reputation of the company's products maintained.

Mr. Reed had a very extensive circle of friends and acquaintances in his native country and in France and England as well. He was one of the very first to show the value of American industrial enterprises to English capitalists, and he so successfully negotiated some of the earlier of those financial transactions as to a great extent to be the cause of the later popularity of such schemes. Mr. Reed made such an excellent exhibition of the products of his company at two World's Fairs held in Paris that gold medals were awarded to his goods, and he himself received the Cross of the Legion of Honor from the French Government. Mr. Reed had a residence in New York and one in Newport, but illness of members of his family had caused the family to reside abroad for about two years.

THE NEW CYCLE-TIRED ROAD-WAGONS.

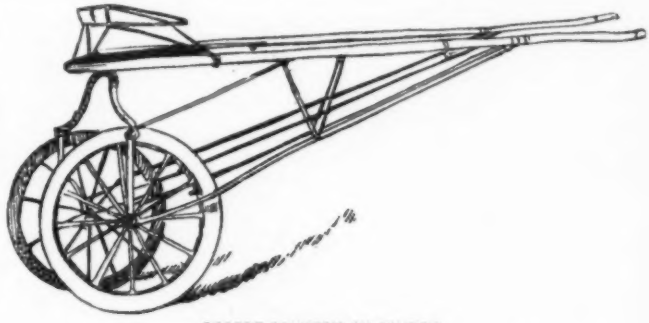
PETER COOPER HEWITT, the son of ex-Mayor Hewitt of New York city [says *The World*] has invented a bicycle-tire road-wagon that horsemen say will work a revolution in the construction of light pleasure vehicles. Several attempts have been made to utilize the pneumatic tire on carriages and road-wagons since the success of the bicycle-tire on speeding sulkies, but Mr. Hewitt's invention differs from all the others in one essential particular, the method in which the rubber is fastened to the tire.

All the other experimenters on this problem, who are many in number, have relied upon a strong cement to hold the rubber to the iron tire. Road-wagons and other light trays must carry heavier loads, and this consideration influenced Mr. Hewitt to seek a substitute for cement in the construction of the wheels.

To avoid all trouble on this score Mr. Hewitt has used a mechanical device to keep his rubber tubes in place. The iron tires on the wagon-wheels resemble those on bicycles, being concave, and to these the tubes are securely fastened by a simple but entirely new device. A patent has been applied for on the invention, and to avoid possible complications the method by which the desired result is attained is not minutely described, at Mr. Hewitt's request. But the device is an entire success, and in the opinion of the carriage-makers who have examined the new wagon the union of the rubber and the iron is as strong and durable as though the whole tire was made of solid iron.

Mr. Hewitt used in his experiment a "one-man" top road-wagon made by J. B. Brewster & Co., and the work of construction has been done at the factory of that firm. The wheels used are of the ordinary size, attached to the axles in the usual way. The ball-bearings used on sulkies have not been adopted. In place of the usual iron wheel-scraper on the wagon sides a wooden roller is used, as the iron would puncture the rubber when short turns are made. This idea is also patented by Mr. Hewitt. The completed vehicle presents a handsome appearance. The tires are so large that the buggy seems radically different from those seen daily on the streets, but there is nothing cumbersome or clumsy in the effect. The impression conveyed is pleasing, the rubber tires giving a sporty and natty finish to the wagon.

A slight puncture in one of the rubber tubes, only detected when it was inflated, prevented a public trial of the new wagon on December 9. This was the fault of the



ROBERT BONNER'S SULKY-TIRE.

rubber factory where the ties were made. Mr. Hewitt's end is all right, and as soon as a perfect tire is sent in the place of the damaged one the wagon will be ready for the road. It will then be presented to Frank Work, Mr. Hewitt's father-in-law.

As far back as 1845 the pneumatic tires were considered as a factor in carriage-building. So many patents have been granted on such tires that it has taken Mr. Hewitt's lawyers some time to straighten out the claim, but this has been satisfactorily done.

Solid rubber tires have been extensively used in this country and abroad on heavy carriages. They make the vehicles run noiselessly and smoothly, and meet with favor. They cost $100 for a full set. It is said that the pneumatic tires for road-wagons will not be so expensive. It will not be necessary to use a pneumatic pump to fill the rubber tubes, a hand bulb being sufficient. Once inflated the rubber tires will run three or four months.

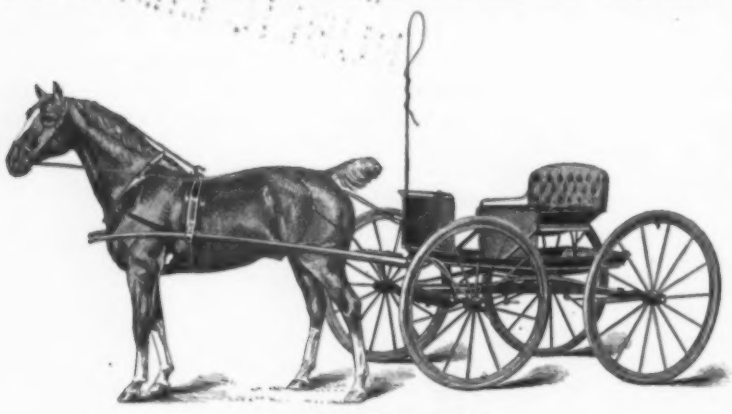
Two other bicycle-tire road wagons have also been tried successfully in this country. One is owned by "Jack"

Cheever, the Cedarhurst polo-player and hunt-club man. The rubber-tires on this wagon are cemented. The other rubber-tire wagon is owned by George Bidwell, the Fifty-ninth street bicycle-dealer. On this wagon the rubber tires are held in place by cement, but the manner of holding the tire is very good.

Another new-style vehicle, brought into notice within a week, is a jointed shaft bicycle-sulky delivered to Robert Bonner. He had it built by Mr. Elliott, who made the first bicycle-sulky, and the shaft attachment, it is claimed, will make the sulky one or two seconds faster than any other. The jointed shaft destroys all horse motion and gives the animal a smoother and more even gait.

* * *

ONE of the wagons above mentioned, and some others as well, are described thus in the New York *Recorder*: Mr. Cheever has a Concord run-about wagon, with P. S. pneumatic tires, that has been driven for two months over rough pavements, and has given entire satisfaction. The wagon weighs 350 pounds, and carries two men handily. It has fitted two-inch tires, made by the New York Belting and Packing Co. The wheels are the ordinary size, forty-four by forty-eight inches.



CONCORD RUN-ABOUT WAGON.

Many prominent gentlemen who have ridden on the tires have ordered them for their own wagons. Mr. Alfred Youngs, of the Union Club, has watched the progress of the pneumatic tires as it concerns road vehicles more closely, perhaps, than any one else. He declares he has found the tire to be a revelation, and that it will surely change the whole carriage trade. He found that all vibration was removed by its use, so that rough pavements, car-tracks, and ordinary obstructions were as naught. The turn in and out from railway tracks was made without slipping. Another thing that is surprising—pneumatic tires on a buggy do not throw mud. On a bicycle they are terrible mud-slingers, but when on a large wheel the tire does not carry the mud. This was demonstrated one day in Central Park, when the slush was inches deep. Every other vehicle was bespattered, but Mr. Youngs's wagon was untouched.

A. T. Demarest, the carriage-builder, H. P. Jones of Newark, and E. H. Harriman, vice-president of the Illinois Central railroad, have ordered tires for their road-wagons. Mr. Harriman is having a park phaeton, weighing 800 pounds, and a "one-man" road-wagon fitted with the New York Belting and Packing Co.'s tires. Captain Blake is another who is having rubber tires put on his wagons. He is going to try them on a buckboard and a three-quarter top buggy.

The tires are made of layers of rubber and canvas vulcanized together, with a protection strip of rubber. The weight they have to sustain makes but little difference in the thickness of the material. A bicycle weighs, with the rider, 200 pounds. All the pressure is borne by the rear wheel, which is twenty-five pounds to the square inch. The added weight does not increase perceptibly the air pressure, because the distribution of weight is equalized by the entire area of the inside air-chamber.

* * *

WITH a perfectly constructed pneumatic tire there is very little danger of accident. This has been demonstrated by the bicyclists time and again. For use on vehicles in cities it will prove of inestimable value. They can be made lighter, run easier and, not tear pavements like the steel tires. Turning off from car-tracks is done with perfect security. For ambulances, fire-engines, police- and fire-wagons, they will be a great saving of wear and tear. The method of putting them on the wheels is a very simple one. A groove is made in the felloe, into which is shrunk a steel rim. On it is placed the tire.

The inflation is done by an air-pump. That inflates the tire to a pressure of twenty-five pounds to the square inch. With the advent of pneumatic tires for road vehicles comes a thousand and one necessities, which will require new inventions. A specially made rim, for which patents have already been applied for, and a side-guard on the wagon, to protect the tire, are the first to be heard from.

The side-guard consists of a series of little cubes, so fastened that they revolve when touched.

If rigid, it has been found that the wheel, in turning, would become fast, and apt to overturn the vehicle. While several kinds of tires have been used, defects were found in some, and further experiments were necessary. A late comer for honors is the well-tried Burris-Michelin tire of France, controlled in America by the New York Belting and Packing Co. In its native country this tire has undergone the severest tests. In matter of speed it holds all the records, and possesses the desirable quality of being easily taken off

and put on. It has two cubes; the outer one, serving as a protection to the inner one containing the air, is fastened to the metal rim by a slight band of steel. It can be detached if necessary.

At first sight the size of the tires make them appear unwieldy. This impression soon changes, and as in the case of the bicycle, the odd-looking tire is the solid one that was, up to two years ago, universally used. Perhaps the tire's greatest advantage, outside of its smooth riding qualities, is the fact that vehicles can be built much lighter. Bicycles have been reduced in weight from sixty-five and seventy pounds to thirty and thirty-five by the use of pneumatic tires. Robert Bonner's new sulky only weighs forty-six pounds, at least twenty pounds less than the ordinary. Parkinson, the carriage-builder, believes that fully 40 per cent. will be saved in weight of material.

There is one thing sure,—the development of the pneumatic tire has done more to advance the cause of wheelmen than everything else combined, since bicycles have been in existence. Horsemen look with a more kindly eye on wheelmen, and are not stopping at the tire, but are following bicyclers in their work in improving the roads.

THE FRENCH RUBBER SYNDICATE.

Special Correspondence of the "India Rubber World."

PARIS, December 8.—The "Syndicat Professionel des Caoutchouc, Gutta-percha," etc., (Professional syndicate of India-rubber, Gutta-percha, etc.) of France, was instituted to study, promote, and defend the general interests of the above denominated and similar trades and professions. The "Syndicat" is composed of all persons managing or having managed establishments for the sale or manufacture of India rubber or Gutta-percha goods, or other goods connected therewith. To be admitted as members, applicants must furnish evidence of their perfect respectability, sign their assent to the statutes, and pay the annual subscription of ten francs.

The "Syndicat" is represented in all circumstances by the "Chambre Syndicale," a board of fifteen members elected in a general meeting of the "Syndicat." This board examines all matters of interest for the particular trades it represents, or connected with the general interests of the commercial community at large; it receives and studies all communications that may be sent in by members; decides on the admission of new members; acts as arbitrator between contending parties, either voluntarily chosen by them or legally seized by some tribunal or court of justice; it takes also all necessary steps and measures to acquaint the members of Government, Parliament, or any other public authorities with the wants or wishes of their corporation, doing all it possibly can to obtain satisfaction.

At the head, and as representative of the "Chambre Syndicale," is the "Bureau," composed of a president, two vice-presidents, a secretary, and a treasurer. They are all elected by the "Chambre Syndicale," of which they must, as a matter of course, be members. The members of the "Bureau" are elected for two years. The "Bureau" stands now as follows:

M. Alph. Sriber, late merchant, president.
M. Henri Menier, manufacturer of India-rubber goods, vice-president.
M. E. Garnier, of the Société Général des Téléphones, vice-president.
M. E. Chapel, late manufacturer of India-rubber goods, secretary.
M. T. Laflêche, elastic-web manufacturer, treasurer.

The "Syndicat" was founded in 1863; it includes very nearly all manufacturers and trades-people of standing and respectability engaged in the India-rubber and Gutta-percha trades in France. It has freely exercised its action and influence whenever the opportunity has been offered,—namely, in regard to laws or regulations affecting the said manufacturers,—and it has been the means of procuring abatements of taxes or other advantages to the trade in many circumstances, such as carriage dues, customs, etc.

On crossing the threshold of the "Chambre Syndicale" all spirit of competition is discarded and left behind. The most friendly feelings are entertained between all the members; they do not look upon each other as opponents, but, considering themselves as trustees of the general interests of their corporation, no one of them would ever think of his own personal interest in any matters the "Chambre Syndicale" is called upon to examine.

The "Chambre Syndicale" has rendered notorious and numerous services to the India-rubber and Gutta-percha trades in France; it enjoys the most legitimate consideration. The utility of its creation has at no time been denied. It has answered to a real want, fully acknowledged, as its recognized and always increasing influence amply justifies.

It was at the earnest wish of his colleagues that the secretary, M. Chapel, undertook to write his essay: "Le Caoutchouc et la Gutta-percha." This splendid work, only just out, is the best compiled, the most complete and thoroughly interesting book that has ever been written on the subject to the present time.

The Repairing of Rubber Tires.

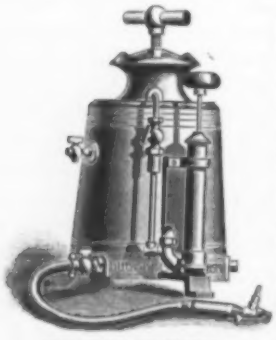
OUTSIDE of the manufactories there are few places as yet equal to the repairing of the pneumatic tire of bicycles. The rider who is so unfortunate as to puncture or burst his tire is uniformly recommended to purchase a new one, which costs him, perhaps, all of $15. So far the number disabled is comparatively few. The annoyance of any one who is unfortunate in this respect is such as to lead him to magnify the accident and cause apprehension in the minds of others. The owner of a pneumatic got strained the other day miles from home, but he was equal to this particular emergency. He filled the tire up with water, plugged it rudely, and carefully wended his way home, winning the admiration of many friends for his mastering the situation. Good rubber-tire repairers will, before long, be in large demand.

NEW GOODS AND SPECIALTIES.

A NOVELTY for the Christmas trade was offered last month by Louis Wertheim, of Frankfort o/M, Germany, the well-known asbestos-goods manufacturer, under the name of "Incombustible Snow." The article, of which a specimen reached THE INDIA RUBBER WORLD offices, consists of finely-carded Canadian asbestos-fiber mixed with mica and other non-combustible minerals, the whole having the appearance of real snow. It is intended for the decoration of Christmas trees, and has found in Germany, where the custom of decorating little fir-trees for Christmas is quite general, numerous friends, although it has only lately been brought before the public. The sight of such a tree decorated with this "Snow" and then lit by numerous candles, may well be believed to be so pleasing that this little invention is quite likely to become an important article of the trade, especially as there is no danger whatever connected with its use, even if the flames of the candles touch it. The article may also be used in theaters and pantomimes as an imitation of real snow-fall and in creating winter scenes. Mr. Wertheim has taken pains to put the article before the public in a pleasing form. The colored picture on the cover of the box, representing four gnomes dancing around a lit-up, snow-covered Christmas-tree, holding burning torches, also serves in an enlarged form as a pretty advertising medium, which is distributed gratuitously to the trade. The article is sold in boxes sufficient to decorate a fairly large tree at fifty cents a box, with discounts to the trade. It doubtless will prove very successful.

A Safe and Economical Cementer.

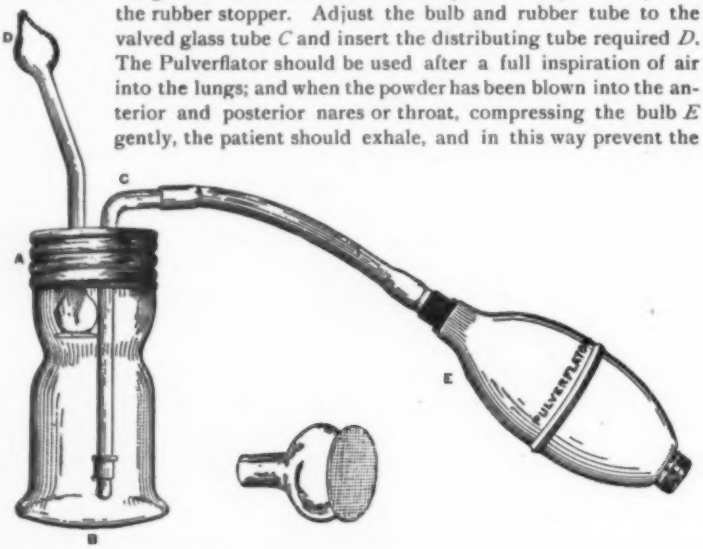
GREAT quantities of rubber cement are used in a variety of industries. The rubber-manufacturers use it in making up nearly all their small goods, but strange to say they do not use the latest devices in handling and applying it. The apparatus shown in the illustration is known as the Union Cementer, and is largely used by makers of leather shoes whenever rubber cement is needed. Any thickness of cement can be used in it, as the pump will easily put the cement under a pressure of forty pounds to the square inch. When the cement is forced out, it passes through a fine strainer, which removes all impurities and delivers it to the work smooth and clean. The tank in which it is contained is fire-proof and air-tight. On one side of the tank is an air-pump for compressing the air on the top of the cement, which pressure forces the cement through the flexible tubes to the hand valve and brush, where it is directly under control of the operator. The tank can be filled with cement in a moment by removing the top. It saves the consumer, by the prevention of waste and evaporation, from 15 to 30 per cent. of the cement used, and being entirely closed is also a perfect safeguard against fire. It can be used with one, two, or three tubes feeding from it at the same time. Manufactured by the Flagg Manufacturing Co., No. 110 Lincoln street, Boston.



THE UNION CEMENTER.

The "Pulverflator."

THIS instrument prevents aggregations of powders from being inhaled, or otherwise coming in contact with diseased conditions of the nasal or other mucous membrane passages, and renders such administration more safe and effectual, in the treatment of catarrhal rhinitis, hypersecretion, atrophic rhinitis, œzena, ulcerative tubercular laryngitis, etc., or when an alkaline, astringent, antiseptic, or protective effect is required. These directions are given for the use of the "Pulverflator": "Remove the screw cap *A* and put sufficient of the powder prescribed into the bottle to cover the rubber cap or valve *B* on the glass tube inside; after which replace the cap *A* firmly over the rubber stopper. Adjust the bulb and rubber tube to the valved glass tube *C* and insert the distributing tube required *D*. The Pulverflator should be used after a full inspiration of air into the lungs; and when the powder has been blown into the anterior and posterior nares or throat, compressing the bulb *E* gently, the patient should exhale, and in this way prevent the powder from covering more than the passages, for which it is intended. The bulb *E* and rubber tube can be kept from powder only by keeping the rubber cap or valve *B* on the inside end of the glass tube *C*. The bolting-cloth sieve *F* effectually prevents aggregations of any powders from passing through the tube *D* and renders their administration perfectly safe and effectual. Should the sieve on the bottom of the bulb *F* become clogged, the obstruction can be readily brushed or blown off." Manufactured by McKesson & Robbins, New York.



The Stillwater Lumberman's Shoe.

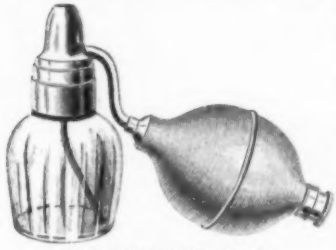
ONE great trouble with the lumberman's shoe has been in its great weight. This has been due partly to the fact that it has been necessary to make them very high in order that they may be effectual snow-excluders. In the Stillwater shoe is shown a device whereby the shoe may be exceedingly light, cut low, and yet effectually keep out the snow. The manner in which this is acomplished is by means of a frictioned canvas extension that encircles the top of the shoe, extending perhaps half an inch above the rubber, in the form of a continuous lap passing

STILLWATER LUMBERMAN'S SHOE.

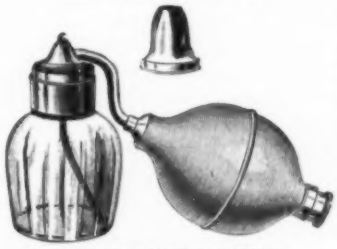
around the ankle. Through this is run a string, which, when pulled tight, draws the top close to the ankle and allows no snow to pass between it and the boot or sock. This shoe has already won warm approval from lumbermen, and large orders have been placed for them. In other points it has all the special excellences that the best lumbermen's shoe can have, including the extension sole, and is made of first-class stock. Manufactured solely by the American Rubber Co., Boston.

The Delano Atomizer, No. 548.

AN instrument that for simplicity of construction and effectiveness must commend itself to users is shown in the accompanying illustrations. By removing the hood or cap from the bottle-collar, a very simple thing to do, free access is given to the small tubes or the vent. It can therefore be easily and thoroughly cleansed. It produces a very fine spray, and ointments that liquified by immersing the bottle in hot water are sprayed most successfully. It is especially adapted to the spraying of cosmoline, alboline, benzoinal, glymol, and most other medicaments of a like nature. The rubber parts are made of an excellent quality of stock, and the atomizer is very neatly finished and carefully packed. Manufactured by Z. Delano, Boston.



DELANO ATOMIZER, NO. 548.



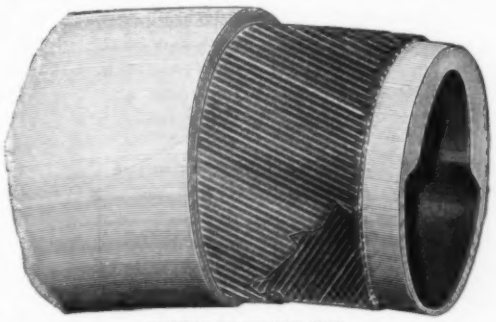
ATOMIZER WITH HOOD REMOVED.

An Insole for Overshoes.

LEGGINGS and German socks are warm and popular, and an invention that allows of the use of a pair of arctics in connection with them, to be worn as shoes, ought to be of practical value and popular. The "Happy Thought" is made to fit into an arctic filling up the depression in the heel, furnishing a comfortable innersole, and stiffen the shoe just enough to make it pleasant to the wearer. Invalids often wear arctics in place of other shoes instead of over them, and the new heel insole enables them to do this with comfort and a nearer approach to a fit than is possible without it. Retailers find a new outlet for arctics by selling them fo wear of this kind, and have already taken hold of the new in, sole with enthusiasm, as most of them are found to carry a full line of arctics to fit their line of leather footwear. Manufactured by the Heel Insole Manufacturing Co., Fultonville, N. Y.

The Palmer Bicycle-Tire.

A RUBBER tire exhibited at the Philadelphia Cycle Show last February embodied a principle that secured the closure of any ordinary puncture that might occur in the tread. It served at once to remove a chief objection to the general use of pneumatic tires. The identical tire exhibited at the Philadelphia show, and later in New York, having been placed upon the rear wheel of a bicycle, was ridden over twelve miles of the roughest road out of Chicago without perceptible loss of air, in spite of there being something over 300 punctures in the tire, varying in size from a pin-hole to that made with the small blade of an ordinary pocket-knife. This original tire has been periodically tested whenever the opportunity presented itself, with the view to ascertaining if there was any failure in the action of the compressed rubber, by which the closure of puncture was obtained.



SECTION OF PALMER TIRE.

So far there seems to be no diminution in the virtue of the device. Few people have any right conception of the difficulties of confining so elusive a body as air. Just as few have any idea of the mechanical obstacles to be surmounted, contradictory requirements to be harmonized, and the tiresome, frequently almost hopeless, search for material that will give the results desired. One thing is certain, no cushion yet discovered is superior to air; so it only remains to so confine it that it will perform the office required of it in the best possible way. The envelope must allow the air to act as a perfect cushion against vibration, yet be strong enough to stand a pressure of fifty to sixty pounds to the square inch. It must be impenetrable, or provision must be made for closing punctures. It must be perfectly flexible and elastic longitudinally to secure easy depression of the tread, with return of part depressed, with equal power upon removal of pressure. Yet it must not be so soft as to permit the shock of meeting a stone to drive the tread to the rim. This elasticity must also be so controlled as to permit of no loss of power in driving the wheel. Durability should also be considered, and a simple means of fastening to the rim, an easy, quick method of repairing in case a hole sufficiently large to permit the air to escape is made. The inventor of the Palmer tire—that to which reference has been made throughout this article—claims the solution of every problem enumerated above. Attention has been given to the fabric used in this tire, as well as to the rubber, with a view to securing strength, durability, flexibility, and a non-stretching quality, while remaining free to stretch when this is desired. The patentee is J. F. Palmer, and the manufacturers and general licensees, The B. F. Goodrich Co., Akron, Ohio.

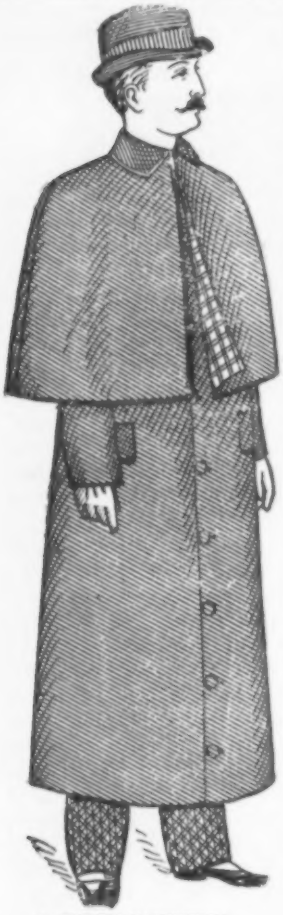
The Thermal Tennis-Shoe.

A FIRST-QUALITY shoe designed chiefly for beach wear is that shown in the illustration. It is made up in black usually, although special orders may be in any color. It is higher cut than the ordinary tennis, covering the ankle, and ranges about half way between the Oxford and the Balmoral. It is lined with slate-colored cloth, has a leather innersole, and a sole of first-quality rubber. Manufactured by the Lycoming Rubber Co., Williamsport, Pa.

THE THERMAL TENNIS-SHOE.

A New and Stylish Mackintosh.

THE gentlemen's mackintosh shown in the accompanying illustration, although differing little at first sight from the popular garment of many makers, has many special excellences. In the first place the pattern is cut with the same care and by the same skilful hands as the best tailor-made overcoats, and the result is that it fits as well. A special triumph has been secured in the set of the collar, which is so designed that it fits around the neck without a wrinkle and with no tendency to curl or get out of place. The cape is of course detachable, and is made either "military" or "half-military." In making up the garment each seam is strapped on the inside, and, in addition to this, is both cemented and stitched. A great deal of care is taken in the stitching that it may be well and thoroughly done, and that there may be none of the missed stitches that so often cause leakages in hastily-constructed garments. Careful atttention is paid also to providing coat-linings that harmonize with the hundred or more patterns of cloth that the company carry in stock and from which these garments are made. The whole garment is carefully and conscientiously made, has a very stylish effect, and is guaranteed to be first-class throughout. Made by the Clifton Manufacturing Co., Franklin street, Boston.



A STYLISH MACKINTOSH.

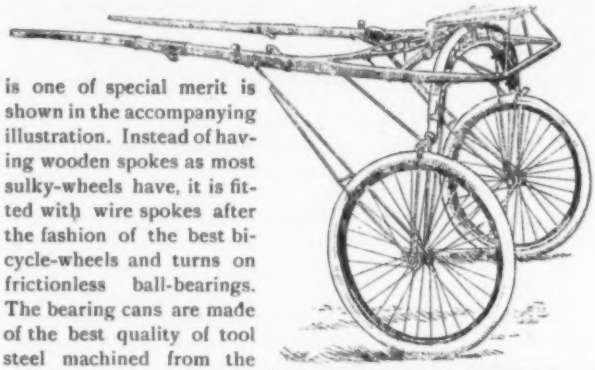
The "Pedestrian" Tennis-Shoe.

IN leather goods there has long been in use a shoe that laces very low for those who do a great deal of walking. This same style is now found in tennis-shoes, and is called the "Pedestrian." Its special advantages are the excellent fit that it ensures and the ease it gives in walking, conforming as it does to the foot in all positions. It is especially adapted for gymnasium use, where a strain comes on that part of the shoe in running or jumping that often splits an ordinary "Gym. Shoe" down to the toe. This is made in black or check, or on order in white or brown. During the last year the "Pedestrian" has had a great run, and it is now one of the prime favorites among those who use any kind of tennis- or yachting-shoe. Manufactured by the American Rubber Co., Boston.

THE "PEDESTRIAN" TENNIS-SHOE.

"Buffalo" Pneumatic-Tired Wheel.

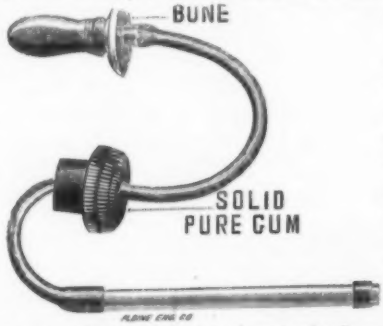
ALL who are interested in trotting horses, and many who are not, know that the pneumatic tire has been applied to the sulky and that it is a pronounced success. A wheel for this use that is one of special merit is shown in the accompanying illustration. Instead of having wooden spokes as most sulky-wheels have, it is fitted with wire spokes after the fashion of the best bicycle-wheels and turns on frictionless ball-bearings. The bearing cans are made of the best quality of tool steel machined from the solid bar. The wheels are made in three sizes,—26, 28, and 30 inches in diameter,—and the three sizes of pneumatic tire are made expressly for them. Only the best of pneumatic tires are used; in fact, it is the aim of the makers to turn out a strictly first-class wheel in every particular. Experts in the use of sulkies have been profuse in their praise of the Buffalo Wheel, and indications are that it is to be a favorite during the coming season. Manufactured by the Buffalo Cycle Works, Buffalo, N. Y.



"BUFFALO" PNEUMATIC-TIRED WHEEL.

The Diamond Nursing-Bottle Fitting.

ALTHOUGH this specialty is not exactly new, yet it has so many points of excellence, and the consumption of goods of this kind is so large, the manufacturers believe that a fresh description of its merits will again call attention to it. In this fitting the rubber tubing is made of pure gum, and it has a bone and seamless nipple. The particular point of excellence in it is the vented pure-gum stopper. This is made of the best stock, and has no pores as the ordinary cork stopper has, and therefore cannot collect any impurities. It is very easily cleansed, and in addition to this is far more durable than the cork stopper. The goods have already a very large sale. Manufactured by Fox, Fultz & Webster, No. 18 Blackstone street, Boston.

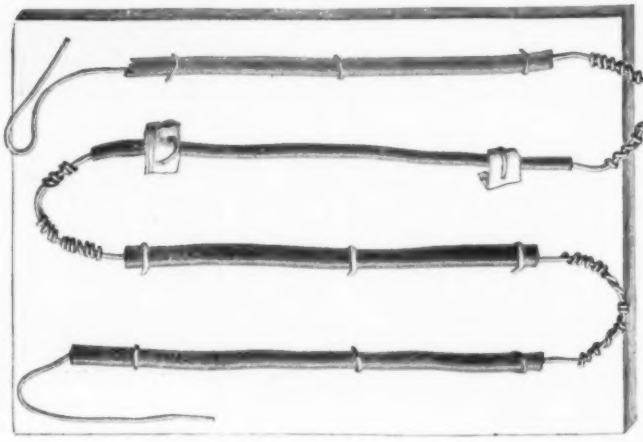


Of Advantage in Arctic-Making.

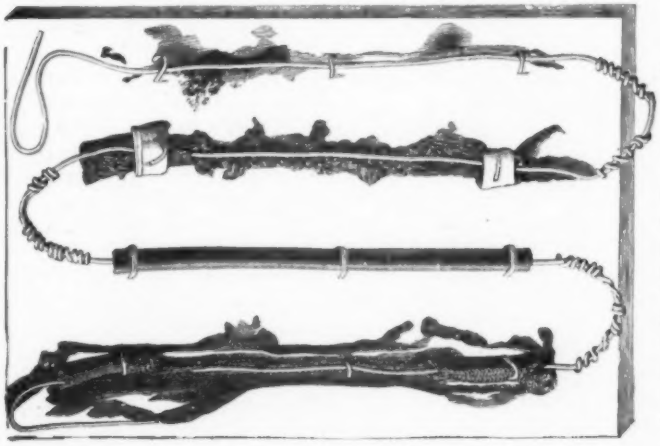
A MACHINE that has long been used in the manufacture of leather goods will be brought before the manufacturers of arctics by the first of April, 1893. It is the Standard Riveting Machine, which automatically feeds, punches, and clinches a rivet in the manner shown in the accompanying illustration. In leather work the shoes can be brought to the machine to be riveted. In arctic work, however, a machine is needed that can be run around to the tables of the makers and take the work as it comes from their hands. A portable riveter is now nearly completed, and numbers of rubber shoe manufacturers have already registered orders for them. Manufactured by the Standard Rivet Co., No. 105 Summer street, Boston.

The "Salamander" Wire.

IT is claimed by the manufacturers that the "Salamander" wire is the only fire-proof insulated wire made. It has been designed with a view to the prevention of fires from overheated electric wires. A number of tests have shown that the covering of this wire will not burn when exposed to a flame, and it appears that the conductor can be heated to the melting-point



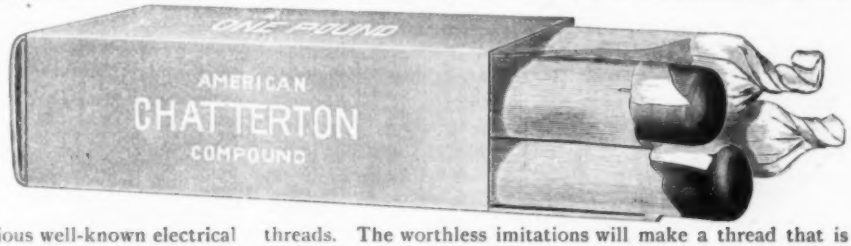
without igniting the inside insulation. It is useful for the inside wiring of buildings both public and private, and it is especially valuable for inside work in electric-light and -power stations. The two illustrations shown represent the appearance of this wire before and after a test made in the presence of a body of insurance and electrical inspectors and experts in New York city in August, 1892. The tests were conducted in the following manner: Several smooth sample boards were prepared, each having arranged upon it samples of various well-known electrical wires, one sample upon each board being the "Salamander" wire. All samples upon the boards had the same size conductor, and were carefully wired together into a circuit, the plan being



to test them in comparison and under the same conditions. These sample-boards represented sixteen leading makes of insulated wires, several of them being claimed by their makers to be fire-proof. A powerful electrical current was then applied, and maintained until the conductor was first brought to a red head, then a white heat, and in some cases melted. Under this intense heat every one of these samples *except the "Salamander,"* was wholly destroyed, in several instances setting fire to the board and blazing all around the "Salamander," but in no case did sufficient heat escape through the "Salamander" covering *to discolor the board beneath it.* It is manufactured by the Washburn & Moen Manufacturing Co., Worcester, Mass.

The Chatterton Compound.

AN English product that for a number of years has had a large sale, and is very valuable for electrical purposes, is what is known as the Chatterton Compound. It is the only thing that can stick mica, and has high insulating qualities. As the English Chatterton encounters a high tariff, many firms have tried to manufacture it in this country. The only successful form so far as we know has been secured by C. S. Knowles, No. 7 Arch street, Boston, who manufactures what is known as the American Chatterton compound. This has Gutta-percha for a basis and retails for $1.50 to $2 per pound. There is already a sale of many thousand pounds of it in this country, and the market is growing. Purchasers of this compound are the manufacturers of electrical goods, chiefly makers of dynamos. There is no patent on the compound, the secret lying in the ingredients used and the manner of combining them. It is a curious fact that pure Gutta-percha will not work as well in many places as the compound will. The ordinary test of the purity of this compound is to heat one end of a piece and by sticking it to some rigid substance, draw it out into



threads. The worthless imitations will make a thread that is perhaps six inches long and no more, but the perfect Chatterton, either English or American, can be drawn into a thread anywhere from ten to twenty feet long and as fine as silk.

The "Fulmen" Arrester.

IN the development of the "Fulmen" Arrester, illustrated in the cut, (Figure 1), the principle of a simple pair of dischargers was tenaciously adhered to, because it is believed that the ideal lightning arrester would be a direct connection to earth, and the nearer we approach this ideal of simplicity and effectiveness, the more likely is the atmospheric discharge to be diverted into the desired channel. The experience of four years of electric street-railway practice has shown that the chief difficulty in obtaining a satisfactory lightning-arrester for power-circuits of 500 volts potential, using a ground return, is that the discharges are frequently destroyed by the arc which follows the lightning discharge, and this not only necessitates a new arrester but leaves that particular locality unprotected until the new apparatus is put into position. By utilizing the destructive agent (the consuming arc), the "Fulmen"

FIG. 1.—"FULMEN" ARRESTER.

arrester is operated by the very force that continually menaces the would-be indestructible arrester. The construction of the "Fulmen" arrester is simply a pair of fine brass wires, 2¼ inches long, made to lap each other three-quarters of an inch, with one-twentieth of an inch air gap between them. These wires form the dischargers and are held in position by a high-resistance wax. A small glass tube is sealed over the dischargers, to keep them clean and dry, and, being called upon to act but once, they will be in the best possible condition for that particular discharge. By connecting one of the outer ends of this arrester to line and the other to ground, one of the simplest known forms of arrester is provided. This is accomplished by providing each fuse with two soft rubber plugs, so spaced by the knots in the wires that the rubbers will fit tightly into the porcelain cover of the arrester box (see Figure 2), allowing the free ends of the wires to project through the cover into the channels of the porcelain box containing the carbon terminal rods; but they do not come into contact with the latter. Loose pieces of carbon, made like small wedges, connect the free ends of the upper fuse to the carbon terminals. In this position the arrester is ready to be placed in circuit. In operation the atmospheric discharge finds a free passage to earth, except one small gap of one-twentieth of an inch, which is promptly bridged. The discharge starts an arc, which short-circuits the line at this point, and the sudden rush of current is sufficient to entirely consume fuse No. 1, and the carbon wedges immediately drop to the free ends of fuse No. 2, bringing it into operative position. Ten fuses are considered enough to protect one locality during a single thunder-storm, after which the arrester should be examined and any missing fuses be replaced with new ones. New fuses may be readily inserted by removing the cover, and, after being refilled, it is replaced with the carbon wedges connecting the top fuse, as before. Since the operation of this arrester depends upon a short-circuit, it is designed only for circuits using a ground return or a ground wire, and is adapted especially for steel-railway practice, being adapted to the pole-line, cars, or power-house. Manufactured by C. S. Van Nuis, No. 136 Liberty street, New York.

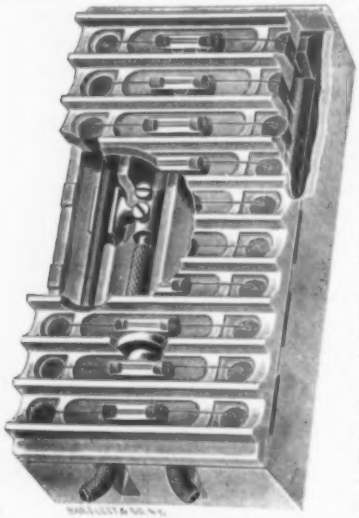
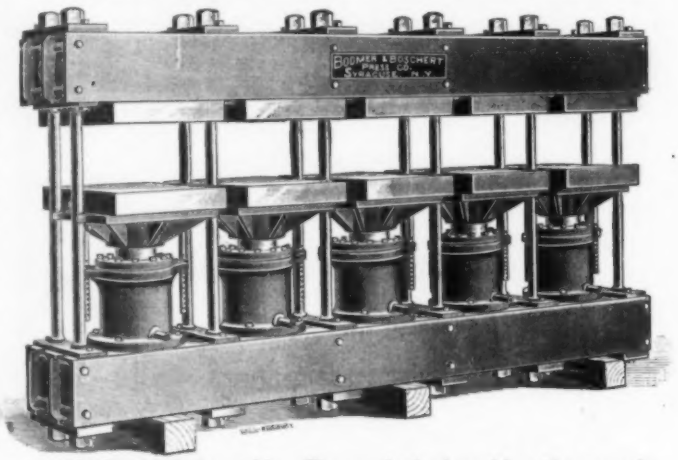


FIG. 2.—"FULMEN" ARRESTER.

Gang Hydraulic Steam-Press.

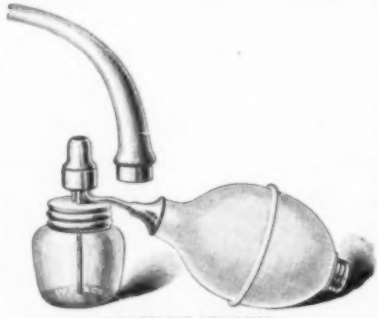
THIS illustration shows a gang of small presses for mold-work, to be operated from an accumulator or direct from a pump as preferred, and which can be constructed in this manner at less cost than separate presses. The head and base are formed of rolled steel beams, and the construction and operation will be readily understood. In order to save opening the press to its fullest extent each time, and to adjust for different thicknesses of molds, stops are provided, consisting of shafts attached to and dependent from the platens, passing loosely through holes in the lugs cast on the cylinders, with holes and pins for limiting the drop of the platen. The number of presses in a gang may be from two to ten or more, and each press is independent of the other. As many intermediate plates can be used as desired, and they are hung from the head by adjustable supports regulating the openings between the plates to the



thickness of the molds. The method of packing the rams is such that the work can be done very quickly and easily. The cylinders are lined with copper and each one tested before leaving the factory. The Boomer and Boschert Press Co., No. 336 West Water street, Syracuse, N. Y., who manufacture this press, also make large steam-plate presses for other work, their knuckle-joint presses being well known to the trade.

Another Vaseline-Atomizer.

WHAT is known as the No. 30 Vaseline Atomizer is shown in the illustration. It is so simple that a few words of description will suffice. It is designed for use in melting and spraying vaseline and like ointments, and for atomizing medicinal oils. The bottle is made with a wide mouth, so that semi-fluids, like vaseline, may be easily introduced. When used, the bottle is put into hot water and the contents liquified before spraying. It is fitted with detachable throat and nasal tubes, and carefully finished in every particular. Manufactured by Whitall, Tatum & Co., New York.



A VASELINE-ATOMIZER.

Objection to Christmas Presents.

NOTICES were tacked up in the various departments of the Candee Rubber Co. yesterday that it would be detrimental to the best interests of the concern for employés to accept presents from persons having or likely to have business relations with the company; also asking foremen and superintendents to discourage the giving and receiving of presents among employés generally. It is claimed that the custom of giving presents has been abused in the shop by those who sought favors from foremen and forewomen.—*New Haven Register, December 16.*

BRIEF ABSTRACTS OF RUBBER PATENTS.

AMONG recent patents issued by the United States Patent Office, embodying applications of India-rubber or Gutta-percha to a greater or less extent, have been the following. It is not practicable here to do more than to note the use of rubber in each case, with sufficient detail to enable those who are interested to decide whether or not to look into any particular patent more fully :

TIRES.

No. 487,419.—India-rubber Tire. Henry N. Lee, London, England.

The described compound tire, consisting of a series of tubes, each having a series of cells filled with compressed air or gas and each having a series of indented and united parts, as described, the whole being enclosed in an outer covering and further reduced by being compressed and then finally vulcanized.

No. 487,522.—Pneumatic Tires. William Golding, Manchester, England, assignor to Charles Macintosh & Co., Limited, same place.

In an inflatable tire for wheels, the covering for a pneumatic tube, consisting of a complete tubular ring, the said covering being made of two curved or crescent-shaped segments of rubber, each overlapping at the edges and cemented and vulcanized together and provided with a tubular lining of textile fabric cut on the bias or cross with the edges overlapped longitudinally for the purpose that when it is made to expand by inflation of air it will contract in length, and thus grasp tightly round the rim of the wheel.

No. 487,596.—Bicycle-Tire. George E. Bassett, New York city.

In a bicycle-tire, the combination, with a wheel-rim perforated near each edge in series, and a spacing-ring seated centrally on the rim, of a pneumatic tire on the spacing-ring, a tread-piece on the tire, a fibrous lining between the tire and tread-piece and secured to said tread-piece, two cushion-rings, one each side of the spacing-ring and enveloped by the lining-piece, a series of clamping-plates embedded in each cushion-ring, having threaded perforations opposite the holes in the wheel-rim, and clamping-screws loosely inserted in the rim-holes and having threaded engagements with the tapped holes in the clamping plates.

No. 487,874.—Pneumatic Tire. Sterling Elliott, Newton, assignor to the Elliott Hickory Cycle Co., Watertown, Mass.

A wheel having a recessed felly and a pneumatic tire supported thereon, combined with one or more independent contractible strips for drawing the air-tube of said tire into the recess of the felly as said tube collapses.

No. 487,669.—Pneumatic Tire. Walter B. Hardy, Boston, Mass., assignor to the Revere Rubber Co., same place.

The described method of forming pneumatic tires, consisting in first applying to a peripherally-concave rim a wrapper composed of rubber compound and canvas, the rubber portion being in contact with the rim, then pressing said wrapper along its central portion closely against said rim by means of a circular core or form and wrapping its flaps or edges around said core and inclosing the whole in a mold or envelope, then vulcanizing the rubber while so confined, subsequently raising said flaps, removing said core, and substituting therefor an inflatable inner tube and then wrapping the flaps successively around the outer portion of said tube and securing them in place.

No. 488,061.—Vehicle-Tire. William I. Bunker, La Grange, Ill.

In a bicycle-tire, the combination of a flexible tube, a partition dividing the same into compartments, and elastic cushions filling one of the compartments and forcing the partition into the space of the other.

No. 488,494.—Pneumatic Tire for Vehicles. Alexander T. Brown and George F. Stillman, Syracuse, N. Y.

In combination with an exteriorly grooved rim having divergent side edges or flanges, a tire comprising, or confining, an inflatable tube, seated and contained partly within the grooved rim, and made rigid or inextensible circumferentially along two lines lying within the groove below the edges but above the deepest part of the same by means of circumferential reinforcements secured to or incorporated with it, and adapted to be held in place in the rim by the action of the internal air pressure.

No. 486,915.—Pneumatic Tire. Pardon W. Tillinghast, Providence, R. I.

The combination with the rim of the wheel, of a hollow inflatable tire having its attaching portion practically of the same width as that of the rim and having the edges of the same attaching portion made thicker than the adjacent side walls of the tire, whereby the chafing of the tire at the edge of the rim will be prevented.

MECHANICAL GOODS.

No. 487,019.—Rod-Packing. George W. Knowlton, Boston, Mass.

An improved ring-packing consisting of three parts, namely : first, the permanently formed or molded inner section made of a strip or strips of textile fabric cut bias and arranged in layers or convolutions, forming a tube, the sides of the layers or convolutions being cemented together and arranged substantially at right angles with the length of the rod encircled by the packing, while their inner edges collectively constitute the wearing surface of the packing and present the ends of the threads at said surface; secondly, the intermediate section or continuous molded ring of partially vulcanized rubber inclosing the inner section, said rubber being in a partially compressed state, and, thirdly, an outer section adapted to protect the rubber, the convolutions of both the inner and outer sections being saturated with a lubricant.

No. 488,220.—Nozzle. Charles V. Pollock, Des Moines, Iowa.

A spraying nozzle adapted to be connected with a suitable source of supply, comprising a body having a longitudinal bore, a bell-shaped mouth at the end of the bore, an annular shoulder at the junction of the mouth and bore, a round ball, and means for retaining the ball connected with the bell-shaped mouth.

RUBBER BOOTS AND SHOES.

No. 488,194.—Rubber-Overshoe Retainer. Melvin T. Frisbie, Lincoln, Neb.

The combination with an overshoe, of the frame herein described having corresponding vertical spring arms provided with lower apertured flanged ends, holding screws or their equivalents passed through said flanged ends, a curved band connecting said spring arms at about their centers, and an upper curved or right angular transverse portion extending from and connecting the upper ends of said spring arms at approximately right angles thereto, and projecting above the heel part of the shoe all of said parts being formed of one piece of metal.

ELECTRICAL APPLIANCES.

No. 488,141.—Process of Insulating Electric Conductors. Charles Cuttriss, New York city, assignor to the Knudson-Cuttriss Wire Co., Limited, of New York.

The method of preparing cotton sliver for application to electrical conductors, which consists in drawing the sliver in its natural state through a boiling non-riseous insulating fluid, such as oil, and then matting or felting the same and expressing the surplus oil taken up by it.

DRUGGISTS' SUNDRIES.

No. 487,873.—Atomizer. Charles M. Blackman, Brooklyn, assignor to the S. H. Wetmore Company, New York city.

The combination of an atomizer having a tapered spray-tube

and a tongue-depressor having apertures of different size adapted to be slipped on and off thereof.

No. 487,088.—Liquid-Ejecting Device for Bottles, etc. Franklin S. Cooley, Philadelphia, assignor of one-half to John E. Goodrich, same place.

A stopper having a bulb, an air-conveying passage leading from said bulb through the stopper, and a tube partly occupying said passage and adapted to extend through the wall of the bulb outside of the latter.

DENTAL APPLIANCES.

No. 487,647.—Dental Vulcanizers. George B. Snow, Buffalo, N. Y.

The combination, with a vulcanizing-pot having lateral side lugs and a pot-cover, of a cover-clamping cross-bar carrying a central pressure device and having a longitudinally projecting carrying-handle and rigid depending arms provided at one edge with recesses having inclined bottom walls to form hooks for detachably engaging the side lugs on the pot.

No. 487,670.—Rubber-Dam Clamp. John W. Haughawout, Omaha, Neb., assignor to Albert S. Billings, same place.

As a new article of manufacture, a rubber-dam clasp comprising a suitable frame-plate flanges centrally and integral with said frame-plate, and a pressure-plate pivoted within and extending beyond said flanges and provided at the ends with suitable depending lips, in combination with operating levers pivoted between said flanges and above said pressure-plate.

No. 487,843.—Dental Plugger. Henry R. Kline, Ashtabula, Ohio.

In a pneumatic plugger, the combination with the air-tube and hammer of a pair of air-bulbs arranged side by side and connected with the air-tube.

SURGICAL APPLIANCES.

No. 487,244.—Embalming Apparatus. Herbert J. Breeze, Olean, N. Y.

The combination of a suitable bottle, a stopper formed with the three longitudinal openings, a tube, a storage-bulb, connected with the upper end of the same, a combined suction and injecting tube, and a hollow needle at its outer end, an injector-bulb provided with valves and cut-off valve, and an exhaust-bulb provided with the valves and cut-off valve.

No. 487,697.—Artificial Limb. Homer F. Ehle, Helena, Mont., assignor of one-half to Albert C. Shilling, same place.

An artificial foot composed of a lower section or sole-piece of felt conforming to the size and shape of the lower portion of the human foot, having a flat upper surface sloping backward at a slight angle and firmly attached to a flat middle section of wood or metal extending from the instep to the heel, having the same angular tilt, which is firmly attached in turn to an upper section of soft rubber which conforms to the shape of the upper part of the human foot up to and around the ankle-joint, and which is thicker perpendicularly in front of the ankle-joint than in its rear.

STATIONERS' SUNDRIES.

No. 487,396.—Combined Inkstand and Penholder. Hugo Siegert, Breslau, Germany.

The combination of an inkstand with a flexible tube connected therewith a penholder connected to the flexible tube, and a flexible bulb connected to the inkstand.

MISCELLANEOUS.

No. 487,042.—Elastic Cord and Method of Making the Same. Alfred M. Ziegler, Boston, Mass.

A cord having an elastic core extended continuously from end to end thereof and a tubular cover composed of individual threads interlocked about the core to hug some portions of the same closely to prevent such portions of the core from resuming their normal or unstretched condition and loosely covering other parts of the core to allow of greater diameter, owing to the contraction of the core, thus affording a springy portion.

No. 483,691.—Hoof-Pad. John Kress, New York city.

A hoof-pad for horses, composed of an elastic pad having transverse ribs at its upper side and a concave upper rear surface and a U-shaped plate embedded in the front part of the pad at its outer edge some distance from the edge of the same, so that the rubber will inclose the plate, said plate being provided with projecting lugs at the front and ends and with perforations in said plate, so that plate is fully embedded in the elastic material of the pad.

No. 483,716.—Composition for Stereotype-Plates. William A. Force, Brooklyn, N. Y.

The composition herein set forth for forming stereotype-plates, the same consisting of rubber, plumbago, white lead, litharge, and sulphur in about the proportion of two and a half pounds of rubber, four pounds two and a half ounces each of plumbago, white lead, and litharge, and six ounces of sulphur.

No. 483,931.—Crutch-Foot. Henry Lanergan, North Cambridge, Mass.

A crutch-foot consisting of a socket-piece formed with an inverted cup, a screw constituting an immovable part of the socket and projecting at the center of the cup, and a pad composed of an inner leather disk, a sole and an interposed rubber cushion, said pad being adapted to screw onto or off of the screw, while the latter stands immovable in the socket.

No. 484,952.—Wheel for Cycles. Rimmon C. Fay, Ilion, N. Y., assignor to the Remington Arms Co., same place.

The combination with a wheel-rim having a threaded opening in its inner periphery, of a removable threaded bushing inserted into the said opening and having its inner face concaved to form a socket and its outer face cut away for clearance, a spoke having its outer end threaded, and a threaded nipple applied to the said spoke and having its outer end shaped to fit the socket of the bushing, and whereby the nipple is free to accommodate itself in the bushing to the line in which the spoke is strained within the limits of movement afforded by the clearance space formed by cutting away the outer face of the bushing.

No. 485,110.—Tire for Vehicle-Wheels. Louis K. McClymonds, Cleveland, Ohio, assignor to the Peerless Manufacturing Co., same place.

The combination, with the rim of a vehicle-wheel, said rim being formed with a large peripheral groove having smaller grooves in its sides, of a yielding and elastic tire formed with annular ribs upon its sides corresponding to said side grooves and a covering-strip upon the tread of the tire, having its side edges clamped between the ribs and grooves and having enlarged edges fitting inside of the ribs and grooves.

DESIGN PATENT.

No. 22,062.—Nursing-Bottle. Gustav R. Schimmel, Detroit, Mich.

Filed Aug. 10, 1892. Serial No. 442,720. Term of patent 14 years.

TRADE-MARKS.

No. 22,108.—Articles of Vulcanized Rubber, including Mats and Matting. New York Belting and Packing Co., Limited, New York city. Filed October 26, 1892.

Essential feature, the word "Pyramid." Used since 1886.

No. 22,148.—Electric Insulators. A. & J. M. Anderson, Boston, Mass. Filed November 12, 1892.

Essential feature, the word "Ætna." Used since January 1, 1891.

No. 22,187.—Corset-Shields or Supports. Eugene Pearl, New York city.

Essential feature, the representation of a half length figure of a woman clasping a corset about her waist. Used since January 1, 1892.

No. 22,189.—Boots, Shoes, Slippers, Rubbers, Sandals, and Analogous Foot-wear. N. Koch & Co., Milwaukee, Wis. Filed November 22, 1892.

Essential feature, the word "Nuform." Used since September 15, 1892.

RUBBER BOOTS AND SHOES.

RECOLLECTIONS OF THE RUBBER-SHOE TRADE.

By George Watkinson, President Colchester Rubber Co.

IN 1860 there were only eight companies making rubber shoes in this country. This was a generation ago. The companies took precedence about as follows: Hayward, Ford (or Meyer), New Brunswick, Newark, Candee, Naugatuck, Boston Rubber Shoe Co., Providence (or National). The styles and kinds of goods made by these eight concerns were so few and simple that the manufacturers of the present day look back to those early times with longings which cannot be uttered. How refreshing those price-lists of thirty years ago would be to the modern retailer who stumbles through the bewildering catalogues of 1892. Then we had but three styles of boots —the "Hip," the "Knee" or "Cavalry" (as if horsemen ever wore them), and the "Short," the latter, of course, running down to misses' and children's. Shoes were simply "overs," "buskins," "three-strap sandals," "one-strap sandals," and "Jessie sandals." The "Jessie sandal" was named after Mrs. John C. Fremont, and its peculiarity consisted in oblique sandal openings, down the vamp, springing like leaves from a central stem. They had a great sale, but soon went out. The "buskin" was a good seller and is hardly gone yet; lingering a protracted existence, it is said, among the front-step scrubbing fraternity of Philadelphia.

The "overshoe" and the "one-strap sandal" are still with us, and the "three-strap sandal" was made to a small extent until quite recently. The "self-acting" came in about 1865 and was brought to its present excellence by the Boston Rubber Shoe Co., with Mr. Bickford's steel shank. The clog was introduced a little later by Mr. Shepard, of the Goodyear Rubber Clothing Co., but was put to the front as a "seller" by the L. Candee Co. Both of these styles had been previously made and abandoned, but were revived and made practicable by the parties above named. The "imitation sandal" was brought out by the Newark company. The original shoe was made by laying pieces of cord on the lining in the usual form of sandal openings under the rubber upper. When the upper was rolled down, the shoe looked like a sandal, with the opening not cut out, like a house with blank windows. Mr. Elliott, of the Candee company, improved on this in 1870, by laying on strips of rubber cord outside the vamp, giving the shoe a crimped appearance. It remained for Mr. Meyer, however, to simplify the whole process by engraving rolls with the crimped pattern and so avoiding the tedious hand labor. This style of shoe still keeps the market after a run of twenty-two years. The "low-cut" croquet came into use the year that Ben. Butler snubbed "Sunset" Cox in the United States Senate, and from this episode the Candee company, who originated the shoe, called it the "shoo-fly." The "croquet" was shortly after invented by the Candee company, who named it the "New Haven" style; but the more popular name of "croquet" was afterwards given it by Mr. Breeden of the Meyer company. Shortly after this the flood-gates were opened, and style after style was inflicted upon the suffering public until the names of actresses, popular hotels, and historical personages were completely exhausted.

In wool goods the arctic was just beginning to make its way and was exclusively manufactured by the Naugatuck company under Wales's patent. This patent was held in awful veneration for several years. To get around it, the Meyer company made an unlined felt gaiter, and the New Brunswick made one red flannel-lined non-waterproof. This was the popular shoe for fine trade. The National made a gaiter with rubber on one surface of cloth, so that we who sold the goods could testify to the "rubber between the cloth." Yet the shoe was not waterproof and therefore did not violate the Wales patent. I have a vivid recollection of the indignant people who would come in with wet feet on a "slushy" day to revile us for selling this shoe. Finally the Boston Rubber Shoe Co., after investigating the patent, boldly went into the arctic business, calling their shoes "polars," and defied a suit from the Wales people. The suit was brought, but was soon abandoned. The bubble was pricked, and the patent was never heard of again, excepting as a huge delusion. All the companies then went to making arctics. Meyer dropped his felt gaiter. The New Brunswick Ventilating Gaiter disappeared, and the National company no longer filled the hospitals with pneumonia patients. Joe Hammond finally clapped the climax with his automatic buckle, making the shoe by this finishing touch easy and comfortable in application to the foot.

In this line, in 1860, we had a "felt buskin" and a "felt overshoe," both of which have gone out, the "alaska" introduced by Mr. Hotchkiss, of the Candee company, taking the place of the latter, about the time when Mr. Seward made his memorable purchase of the territory of that name.

The only rubber boot that had any reputation in those days was the "Hayward." That company had a monopoly of the boot business. The Meyer Company sold a great many of their boots by a successful device. All the boot-heels were then made under Hayward's patent. The law required that the patentee's name should be stamped on each heel. Mr. Meyer, being a law-abiding citizen, stamped his heels with a vengeance. The name **HAYWARD** was displayed in large letters, and the name MEYER, with rare modesty, was made very small. The wear on the Meyer

part of the plate, strange to say, was very great indeed, for after awhile the name could scarcely be seen at all. The boot then looked like a genuine Hayward boot, and great was the sale thereof. The Hayward company then put out circulars telling everybody to look for the name "Colchester" in addition to "Hayward" if they wanted the real article. Both Hayward and Meyer boots were shortly "knocked out" by the "Woonsocket," with its diamond top, which finally in turn fell before the Candee "double thick ball."

In 1866 the sale of rubber boots in the West was so small that in an order given me by Mr. Schmertz, of Pittsburgh, for 500 cases of rubbers, only five cases in the lot were for boots. In the same year the sale of even five cases of boots in Milwaukee was a matter of such grave doubt that I had to consign that quantity to Bradley & Metcalf to get the goods started in Wisconsin.

The Sage of those days was Henry Elliott of New York, who sold "rubbers exclusively" at No. 53 Dey street. He did a business of $100,000 in 1860, and his net profits were $22,000! It is so long ago that he won't mind his old bookkeeper giving away this interesting fact.

In 1860, the Goodyear patent being in force, the goods could only be had of their agents, Wales & Emmons, of Boston, and Breeden & Southwick, of New York. Under their autocratic rule you had to wipe your feet on the mat, enter the office hat in hand, and be exceedingly deferential, or else you could not buy rubbers at any price. Things have sadly changed since then. It is the agents now who have to wipe their feet and doff their hats.

Mr. Converse now is almost the only one left of those early magnates. In 1860 he stood toward the foot of the class; but by a combination of many rare and excellent qualities he has since then built up a business which has far exceeded in magnitude the wildest dream of 1860. Mr. Evans, of the American Rubber Co., a later phenomenal success, does not come within the scope of this retrospection, but no rubber article in this day would be complete without a passing reference to the president of the United States Rubber Co.

THE FOUNDER OF THE BOSTON RUBBER SHOE COMPANY.

SAID a large western buyer: "I often think that I work too hard, and that it is time for me to retire, and then I see Elisha S. Converse and note the busy life he leads, the cheerfulness and enthusiasm which he brings to his exacting duties, and I am covered with shame and spurred to fresh effort and greater achievement." Although the founder of a great and successful business, with every chance for self-gratification, Mr. Converse is still the active manager and lives the same quiet unostentatious life full of work that he has lived for so many years past. All who are familiar with the rubber boot-and-shoe interests know what he has accomplished in a business way; all have seen him or his portrait, but all do not know the man as he is, for they glimpse a many-sided life only from a business standpoint. Physically Mr. Converse is of medium height, compactly built, his broad shoulders and deep chest giving evidence of strength and endurance. He is to be found at his Boston office daily, and regularly visits his factories at Malden and Melrose, keeping in touch with buying, selling, manufacturing, and financiering. His home is in the city of Malden, Mass., in the growth of which he has ever been intensely interested.

Ten years ago, when Malden had a population of 12,000, he advocated its incorporation as a city and, in spite of the fact that he was full of business cares, allowed himself to be elected the first mayor. To-day the city, prospering under the wise rule of the city fathers, has more than 30,000 inhabitants, and is still growing rapidly. A fine public library, the gift of Mr. Converse, is one of the features of the city, and it cost the donor an amount that can only be guessed, as he has never told even the most intimate friend the generous amounts he paid before it was presented to the city. In addition to this is the city hospital, the Old-People's Home, and the beautiful Baptist church, to all of which he contributed handsomely, and in each of which he was and is a moving spirit. Nor has Malden been the only place where his broad and helpful spirit has been manifested. The Consumptives' Home at Roxbury has received substantial aid from him regularly, and many Boston charities are made more effective by his gifts. He is also one of the trustees of Wellesley College.

Four different times he has fled away from business for a brief European trip, and has always returned refreshed and taken the helm again with an enthusiasm that a man in the thirties might envy. He has also been well over the United States, sometimes on business trips and sometimes on pleasure excursions. He is fond of horses and always has a number. Every business man needs some simple relaxation that will enable the mind to dismiss the ever-pressing cares of business and fix itself upon something as foreign to the daily grind as possible. Mr. Converse is no exception to this rule. Up to his fiftieth year, so remarkable was his vigor that he did not fully appreciate this need. About that time, however, he found that, if he wished to keep his health, business must be banished a part of the time each day. He therefore took up the game of solitaire, which he plays for a time when at home each day, Sunday excepted. He also forgets the office in quiet but absorbing games of whist. Very fond of social life, he has surrounded himself with friends and enjoys home gatherings with a zest that is equal to the enthusiasm of a youth of twenty. He is not a club man, although his position has of necessity made him a member of the Algonquin and other associations of the leaders of Boston society.

The kindliness of his character is shown not alone by the generous sums he gives for important charities, but fully as much by the interest he takes in the welfare of his employees, which is returned in their veneration and love for him. Known as a kind-hearted man, he is the re-

ELISHA S. CONVERSE.

cipient of thousands of begging letters, and the unfortunates of every class, whether or not they have any worthy case, press the most absurd claims upon him. He is patient and courteous with all, but firm as a rock where he feels that imposition is being practised upon him. Always anxious to avoid business troubles, he will however, when forced into it, push a suit with an energy that is pretty sure of success. Many of his business associates seek him for advice on financial questions, and the calm and careful consideration that he gives a question, together with his large fund of general information, make his conclusions singularly sound and valuable. Perhaps his special faculty, and one that has most tended to his success, has been that of selecting the right men for heads of various departments and binding them to him so closely that they felt more than a personal interest in his work, and were willing to devote every energy to its accomplishment. Mr. Converse's greatest possessions lie in his wealth of interest in life, his abundant youthfulness, and his honest enjoyment in being of service to others.

If Mr. Converse lives until July 28, 1893, he will begin his seventy-third year. Despite his years, it is not correct to speak of Mr. Converse as "a gentleman of the old school." There is nothing about him which savors of antiquity. He is not opinionated. He does not "crawl into his shell," after the manner of many men of seventy, and become secretive. He is in touch and sympathy with the times and the younger men who make current business history. It is because of this and because of the courtesy of Mr. Converse that all men, whether young or old, are glad to meet him.

* * *

NEWS ABOUT RECOVERED RUBBER.

THE Washington *Star* prints an elaborate article on rubber shoes in which appears the following bit of elaborate misinformation:

"People often ask why it is that the old rubbers are never of any use—why they are not made over into new ones—into a sort of rubber shoddy, perhaps. The reason is that when the rubber is once raised to a temperature of 150° F. (to which temperature it goes in the process of manufacture into boots and shoes), a change takes place in its adhesive substance which, on cooling, does not recover the primitive properties of caoutchouc, and the rubber once made up can never be remade successfully."

Further on the writer says positively: "More boots and shoes will be called for every year, and we shall have them sent to us cast thinner and thinner until the sham will declare itself to the dullest buyer. What we will do then I don't know. Perhaps some inventive genius will find a substitute."

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HANDSOME NEW OFFICES.

THE new offices of the United States Rubber Co. in Boston fill a large apartment on the ground floor of the Shoe and Leather Exchange Building, Nos. 114–128 Bedford street. On the street front are the offices of the Wales-Goodyear Co., the Candee Co., the American Rubber Co., and the National India Rubber Co. These companies have each splendid windows on which are their names and the trade-marks that are so well known. In the rear of these offices are the book-keepers' offices of the American and Wales-Goodyear companies. Next is the show room for clothing, and connected with it the office of the clothing business of the American Rubber Co. By the side of this office are their elegantly arranged shoe show-rooms, and beyond

this the private office of Charles L. Johnson, director of sales. Across the passageway is a large general parlor and a private room for customers. Telephone-and telegraph-offices and spacious vaults complete the list. The whole interior is finished in ash, lighted with electricity, elegantly carpeted and furnished.

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TENNIS-SHOES FOR 1893.

THE American Rubber Co. will make their regular lines of tennis goods, the first quality being in black and check duck for the "Pedestrian" shoe, and the same colors in Balmorals and Oxfords. They will also make goods to order in white or brown duck. The second quality, or "English sole," will be made up in black and check duck, Balmorals and Oxfords.

The Wales-Goodyear Shoe Co. will make a line of tennis practically identical with last year's goods. There will be the "Wales-Goodyear" goods, first quality, in black and check, and the "Champion" in black and polka dot. Whites and browns will be made only on special order.

The Boston Rubber Shoe Co. have found that there is such decided call for their ventilating tennis-shoe that they have decided to manufacture nothing else in the tennis line for 1893. They will therefore discontinue the "Bay State" tennis goods and make the ventilating tennis in black and white and in

stripes. It will be remembered that this shoe, which was designed and patented by this company, thoroughly solves the problem of a rubber-soled shoe that does not draw the feet nor cause them to perspire. This is effected by a perforated leather insole, beneath which is a felt sole allowing just enough of ventilation to counteract the heating effects of the rubber outer sole. Regarding the quality of the goods it is necessary to say simply that every pair is stamped Boston Rubber Shoe Co.

The National India Rubber Co. will make first-quality goods branded with their name and second-quality marked "Shield Extra Thick." They will make all sizes—men's, boys', youths', women's, misses' and children's. First quality in black, brown, or checked duck and black satine; second quality, in black, brown, or checked duck.

The Candee Rubber Co. are to make as usual but one grade of tennis-shoes, and that of first quality. These will be in black serge and check duck, and to order in brown and white, at list prices. These will all have sole-leather insoles, and will be made in Balmorals and Oxfords. For the last two years the demand for Candee tennis has been greater than the supply, and this year the company expect to greatly increase their output.

The India Rubber Glove Co. will make tennis-shoes, only first quality bearing their stamp. They will be in checks, browns, and blacks, for staple goods and in any colors on order. They have had varieties of patterns of duck submitted for this year's goods, but those of last year suited so well that they will make no radical change in style.

The Lycoming Rubber Co. (Williamsport, Pa.) will make two grades of tennis shoes for 1893,—first quality branded "Lycoming" and second branded "Keystone." They make all sizes, men's, women's, and children's, in tan, check, and black. They did a very large business last year and expect even more generous orders this year. A specialty with them is the "Thermal" tennis, a very popular beach shoe.

The Woonsocket Rubber Co. will begin this year in earnest to make tennis goods. There will be two grades,—the first branded "Woonsocket," the second branded "Rhode Island." The colors will be such as the trade are calling for this year—blacks, browns and checks, and other colors on order.

The New Brunswick Rubber Co. will place on the market their "Norfolk" tennis, in black and check duck, and in Oxfords and balmorals, for men, boys, youths, women, misses, and children. These goods are Seconds and made with corrugated outer sole, full-lined, cloth innersole and regular eight-ounce standard United States Army duck.

The Meyer Rubber Co. will not make tennis goods this season, devoting their full capacity to their regular lines of goods.

The Goodyear Rubber Co. will handle the tennis goods of the National Rubber Co., but will make none in their own factory.

The Manhattan Rubber Shoe Co. (Setauket, L. I.) have commenced to make 8000 pairs tennis-shoes per day, and will shortly increase their capacity to 10,000 pairs per day.

The prices on tennis-shoes for the present year will not vary radically from those of 1892. Of course with added lines and slightly different styles there cannot be an absolute uniformity, but the changes are unimportant. A single list for a sample will show about how prices stand:

First Quality.—Black Satine, Black, Brown, or Checked Duck, in Cartons:

	Men's.	Boys'.	Youths'.	Women's.	Misses'.	Child's.
Oxfords....	.75	.70	.65	.70	.65	.60
Balmorals..	1.00	.95	.90	.95	.90	.75
Second Quality.—Black, Brown, or Checked Duck, in Bulk:						
Oxfords....	.50	.47	.44	.47	.44	.41
Balmorals..	.70	.67	.64	.67	.64	.61

[If packed in cartons 5 cents per pair on gross list will be added.]

TENNIS SOLES.

THE Tyer Rubber Co. (Boston) do a large amount of mold-work, and of late years tennis-soles have cut quite a figure in their orders. They report that this season's sales will be largely in the line of smooth-bottom red soles, and the black seems to be losing ground. There is also less call for fancy soles than formerly, and a tendency to order the better quality of goods rather than the poorer. Soles with star-points are sold in certain localities, but are not generally called for. A new sole that is finding favor is one of smooth rubber with a toe-tip of leather. Most of the makers of tennis goods who purchase molded soles of the rubber manufacturers get up their own molds to suit themselves and such as are adapted to their lasts. Some run six different widths. Three styles of toes will be popular this year,—the Waulkenphast, Piccadilly, and Opera.

The Globe Rubber Works (Boston) made a good start on molded tennis-soles last year, and this year expect to do much more. They will make the standard styles in black and red.

Spinney, Virtue & Co. (Lynn, Mass.) are about the only concern that have in the past made a specialty of tennis soles for the shoe-manufacturers. Others, although large makers, only took up the business as one of many lines of mold-work. Mr. Virtue in a recent interview said: "Shoe-manufacturers call fo these soles because their customers want a tennis-shoe made on their lasts. This means a different mold for every size, and different sets for each maker. We have probably 700 different molds at our works, and when you consider that each one costs from $25 to $31 you can readily see that it costs something to go into this sole-molding. The popular sole for 1893 will undoubtedly be the red, although many blacks will be disposed of. There are probably ten concerns who are buyers of these rubber soles and only three of them are really large buyers. Soles are put on the market all the way from 25 cents to $1.50 a pair, and the ordinary wearer will choose the shoe with the cheap sole, and then kick because it does not wear like the high-priced one. The business is opening up well and ought to be larger than ever before this year."

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AMERICAN RUBBER SHOES ABROAD.

THE popular Boston selling-agent of the Woonsocket Rubber Co., Mr. E. H. Cutler, has returned to his post of work after a trip to Europe, which gave him an opportunity to visit England, Ireland, France, Germany, and Switzerland. Mr. Cutler's trip was wholly of a business nature, in the interest of the house with which he is identified, the principal object being to take a personal observation of the present status of the rubber trade in the countries named. The result is that he is firmly convinced that there is a great future for the rubber-goods trade in the countries across the Atlantic, and it would not be at all surprising to see the Woonsocket company branching out at an early date with a view of capturing a big slice of this trade.

In a very pleasant talk with a representative of THE INDIA RUBBER WORLD Mr. Cutler said that he could not at present state just what his company would attempt to do in foreign fields, as a result of his observations, but personally he was satisfied that there was a great opening for them, especially in England, France, Switzerland, and Germany. One thing which must be done by American manufacturers who desire to share this trade is to establish a central depot in London from which all foreign cities and countries shall be supplied.

"Don't you see," said Mr. Cutler, "that we can enter the products of the American rubber factories into London free of duty, and when once there they are within forty-eight hours of

all the larger cities of the continent. As a matter of fact, the sale of American rubber goods in these countries has never been pushed. For example, all that the Woonsocket company have ever done is simply to establish agencies in these countries. Despite this fact the American rubber trade abroad has been on the increase, and I firmly believe that, were we to establish a central depot in London, within three years we could sell a million dollars worth of goods.

"There are many peculiarities, however, in the foreign rubber trade, and the American manufacturer who would capture it must either cater to it or else go to work and educate the foreigner up to the American idea. In London, as a matter of fact, very few rubbers are worn over the shoes. A few years ago none whatever were worn, but of late years the people have been catching on to the idea of having dry feet, in great shape. It is the style over there to have everything of an extra heavy weight. The women, when they go out upon the street, up to a very recent date never thought of such a thing as putting on a pair of rubbers, but instead wore a very heavy shoe. For instance, a French-calf shoe has up to very recently been considered the proper thing for street wear, and despite the rains and drizzles of London there was not a rubber to be seen. Slowly, however, a change is being wrought. A lighter shoe is now coming to be worn, and in inclement weather this is encased in a nicely-shaped rubber. There is, however, among those adopting this change in footwear, still a tendency towards something heavy, and not infrequently is the rubber not only of enormous weight, but unsightly in shape and general appearance as well. Not only is the fact that this change is slowly taking place an indication that there is a great future for the rubber trade abroad, but the fact also that in hardly no other land in the world do they have so much wet weather as there shows that sooner or later rubber garments must become a part and parcel of every European wardrobe.

"There are numerous rubber factories, scattered all about the countries I visited, but they are very insignificant compared with those in this country. The largest factory in England is that of the North British Rubber Co., and that whole plant could be placed inside of our 'Alice' mill, and then there would be left room to spare.

"At what figure can we sell the products of our American mills in Europe, do you ask? We can ship our goods to that country cheaper than we can to Denver, Col., and we are able to get about 10 per cent. more for our goods there than we are in this country. It is also a fact that we can easily undersell the English manufacturers in their own country. The people over there are growing to believe that our goods are superior both as to quality and durability as well as in fit, and they are altogether too sensible to let their prejudices in favor of home-made goods stand in their way when they can get a better article at a much cheaper price, even if it is made in this country. There is not that prevailing craze on that side of the water which there is and always has been in this country to get a foreign-made article, and, if the American rubber-men desire to capture that trade, an inducement must be offered them in the shape of price and quality.

"The rubber industry, and especially that branch of it devoted to the manufacture of footwear, is really in its infancy in the countries across the water, and the American house that goes there in anything like a generous and business sort of way can, in my mind, have no possible trouble in developing it to its own pecuniary enhancement. Why, up to a very recent date the stablemen of England, when washing carriages, etc., have been in the habit of wearing wooden shoes and leather aprons rather than rubber boots and aprons. Just as an experiment our agent has visited some of these people and persuaded them to try the latter, and no one could under any circumstances get them to go back to their quaint old toggery."

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BOOT AND SHOE FINDINGS.

WILLIAM LINCOLN SAGE, the well-known jobber of rubber footwear, bursts into song in a recent "ad." in *Boots and Shoes Weekly*. Two of the verses are as follows:

Old King Kole was a merry old soul,
And "nobby" as a Spanish Grandee;
When he started off with his fishing-pole,
His boots they were "Candee."

The kings of olden time, we read,
Employed their fools or jesters;
But the kings were foolish kings, indeed,
If they didn't wear "Colchesters."

—Now that the russet shoe has come in for winter wear, it ought to boom the neat russet rubbers made by the India Rubber Glove Co.

—A burglar arrested in Portland, Maine, recently wore rubber-soled shoes. Wonder who soled them?

—Charles L. Johnson, Chester J. Pike, and E. H. Paine are among the prominent rubber-men of Boston who have lately visited the West on business errands.

—The Boston Rubber Co. will not move into the Shoe and Leather Exchange building with the rest of the companies that are parts of the United States Rubber Co., but will retain their old offices at No. 9 Otis street, Boston.

—The sales of the Arctic Sock, manufactured by John H. Parker (Boston), were twice as large in 1892 as in the year before. They are having a large mail trade, so large that three mailing clerks cannot keep up with orders. Retailers are also pushing them with extra vigor this season.

—William E. Barker, of the Enterprise Rubber Co. (Boston), is just back from a visit to the factory of the New Brunswick Rubber Co., with new samples and a fund of satisfactory information for the coming year.

—The mail trade in leather shoes has for a number of years been quite a feature, but as a rule few other rubber goods have been disposed of in that way. Mr. C. J. Bailey, of Boston, has, however, worked up an exceedingly large mail trade on his water-tight foot-holds and the "Perfection" rubber. The latter is just now booming; so much so that it is with difficulty that they can keep in sight of the orders.

—At this time, when pneumatic tires are so widely talked, it is well to remember perhaps that a scheme for putting a pneumatic cushion in the sole of a shoe has been tried. An inventor designed a double rubber sole for the ordinary leather shoe, which was to be inflated, and thereby do away with the jar of walking, and in addition give a springy step. How far this can be carried out is a question. The initial experiment was not a success, but it may be that it contains the germ of a good idea.

—The approach of the Columbian Exposition leads makers of all goods to utilize that name for their new styles. As yet no rubber shoe has been christened by that euphonious name. This is offered either as a suggestion or warning, as the reader sees fit to accept it.

—President Banigan, of the Woonsocket Rubber Co., is accustomed each year to present each member of his large office force with a handsome silk umbrella.

—The Brockton Cricket Club, consisting of employés of the Hub Gore Co., have instituted a rhythmic yell similar to that used by the Yale men. It is made up of repetitions of the words Hub Gore and "rah," "rah," with various inflections.

—A self-adjusting fastener which is something after the fashion of a lumberman's shoe buckle is now being applied to walking-shoes. It is the invention of a Western clergyman who first brought it to the attention of the rubber trade, but it was not then largely adopted.

—A heel insole for arctics, so that they can be worn over the stocking like a lumberman's shoe, is a popular seller this year. It is manufactured by the Heel Insole Manufacturing Co., Fultonville, N. Y.

—Joseph Hammond, Jr., proprietor of the "H" untempered buckle, was one of the directors of the old Hayward Rubber Co. In fact he was one of the originators of it, and as such got in "on the ground floor," remaining in the company throughout its long career of usefulness.

—William Keyes, who sold goods for the India Rubber Glove Co., and had an office at No. 67 Chauncy street, Boston, has accepted a position with Prescott Brothers, Cornhill street.

—Robinson Crusoe, gazing with wonder at the human foot-tracks in the sands of his island Paradise, is the subject of a recent advertisement of the Woonsocket Rubber Co. A feature of these tracks which DeFoe failed to mention was that they were made by somebody who wore rubber shoes, and each one leaves as its imprint in the sand the name of the Woonsocket Rubber Co.

—The "Mascotte" heel-plates for rubber footwear are having a remarkable run this season.

—The factories of the Boston Rubber Shoe Co. and the methods employed in making rubber footwear are illustrated and described at length in a recent issue of the *Scientific American*.

—One of the best miner's boots ever made was produced at the Ætna Rubber Works in 1876, under Wheeler Cable's management. It was a steam-cured boot made on a metal tree, and won an enviable reputation in the mines. It was only when the compound was changed to get rid of the "bloom" that it failed to retain its hold on popular favor.

—Superintendent Elliott, of the L. Candee Co., tells with great gusto of a renowned chemist who in the long ago proved to his own satisfaction that sulphur was not needed in curing rubber footwear. The management listened to his story courteously, as they do to thousands of others, but kept right on running their own business.

—The Evans Artificial Leather Co. (Boston) are making a substitute for sheepskins or skivers of thin coated fabric, which is used by shoe manufacturers for top-facings and button-lining pieces.

—Ankle-supports for skating are advertised. As a matter of fact a leather-soled rubber boot is about as fine an article to skate in as can be found. Ask John H. Parker, the Boston leather-sole rubber-upper manufacturer.

—The Woonsocket Rubber Co. are having a great call for arctics and wool boots.

—The Pará plant (South Framingham) is still idle. Nor is it likely to be used as a factory for leather footwear in the future.

—E. Bruce Preston, of Chicago, when out for big orders, tells his clerks that he is "out for bear." By the way he is disposing of boots and shoes this season he must have bagged several grizzlies of the largest size.

—An expert on rubber boot and shoe manufacture claims that a substance known as indroli is used in the compounding. Who can tell what it is?

—The Congress shoe is rapidly growing in favor, partly because the elastic-side is comfortable and partly because more attention is being paid by manufacturers to stylish appearance.

—"Pedestrian's headache" is said to be entirely cured by the safety rubber-heel lifts of J. A. Krieg & Co., of New York. This ought to be a popular thing among impecunious actors.

—A large demand is expected for the storm-slipper this season, and some of the companies will make as many as three different styles. The plans in this connection, however, have not been fully detailed.

—The New Brunswick Rubber Co. will put again upon the market this season their bathing slipper, which took so well last year. This shoe has no lining and is gotten up very cheaply.

—The Southern darkey is the one who casts the most anxious eyes towards the tennis-shoe. It is to him that or go barefoot, and the great trade is expected from him this season. The word "tennis" is now practically a misnomer.

TRADE AND PERSONAL NOTES.

THE Norfolk Rubber Co., recently incorporated under the laws of the State of Maine, and having offices and store at No. 107 Chauncy street, Boston, are organized with James F. Mullen, president, of the firm of J. F. Mullen & Co., tailors' trimming business, Boston, and T. E. Eustis, treasurer, formerly of G. W. Eustis & Co., Lewiston, Maine, and a director of the national bank in that place. Mr. Eustis is accounted a fine judge of cloth, as for ten years he was with a very large wholesale dry-goods house in Lewiston. The superintendent is E. G. Black, formerly superintendent of the Columbia Rubber Co., at East Braintree, Mass. The company, in addition to their store on Chauncy street, have a large stitching department occupying two floors on the opposite side of the street, and have also a factory at Stoughton where they spread and vulcanize the cloth. Their specialties are ladies' and gentlemen's mackintoshes, single and double-texture, and their intention is to make only the finest goods. They are already crowded with orders and very much encouraged with the present business outlook.

—A reader of THE INDIA RUBBER WORLD, in speaking of Mr. Everit's article on "The Pará Rubber Trade Forty Years Ago," makes a point that the writer forgot to mention. One of the Salem importers—in fact the last one, the firm of Phippe & Endicott—continued the business of the Bertrams, starting about 1855 and running the business until 1858, the panic of that year being so severe as to cause a dissolution of the firm. These were the last rubber importers of Salem, instead of the Bertrams.

—C. H. Noyes, of the Hodgman Rubber Co. (New York), reports that this has been the biggest year that they have ever had both in retailing and jobbing goods from the Boston end of the line.

—The offices of the Cleveland Rubber Co. are remarkably well fitted for the rapid transaction of business. Among other conveniences they have their own telegraph-operator, and the lines of the Western Union and Postal Telegraph companies enter the office. In addition to this there are both local and long-distance telephone lines.

—The drying-rooms of the National Rubber Co. (Bristol, R. I.) can be reached only by elevators, as there are no stairs, a discouraging feature to petty rubber thieves, from whom many manufacturers have suffered.

—Alfred Hale, of School street, Boston, is making a rubber-coated kidney plaster that is having quite a run.

—The Baptists are the only denomination that directly encourage the rubber business. Their purchases of baptismal pants and baptistery rubber mats is quite an item to some manufacturers.

—An act of malice that should have met with speedy punishment was the stringing of barbed wire across the roads over which the Columbia Relay race was run. It resulted in punching several pneumatic tires and delaying the races considerably.

—A Boston physician of note has recently interviewed the Boston Cab Co., to see if they will not fit some of their cabs with rubber tires for the use of invalids.

—When the factory of the American Electrical Works of Providence, R. I., were but just starting in on insulated wire, a Grinnell sprinkler prevented a disastrous fire.

—The Brown & Sharpe Manufacturing Co. (Providence, R. I.) have designed a new and effective gage for measuring spread rubber at the calender or in the work-rooms.

—Mr. Frank Phelan is no longer connected with the F. J. Kaldenberg Rubber Co., New York.

—Prescott Brothers, of Cornhill street, Boston, do the most of the wringer-roll repairing business in New England. They keep five men at work all the time replacing worn-out rolls with new ones.

—Mr. Nusbaum, formerly with the Columbia Rubber Co., and later with the Stoughton Rubber Co., will sell New York trade for the Clifton Manufacturing Co. (Boston) this year. Mr. L. L. Cheney handles Boston trade for the same company.

—C. J. Bailey, proprietor of Bailey's Rubber Store, Boylston street, Boston, was fortunate in securing a very large stock of mackintoshes and in having a phenomenal Christmas trade in that line.

—The rubber-tipped arrow, in all sorts of alluring forms, has taken the possession of the market for the holiday season. The Lovell Arms Co. have a whole window devoted to it, in which sits a youngster shooting arrows at a target and attracting a great deal of attention.

—Charles Dove, of the Clifton Manufacturing Co., has connected himself with the Gossamer Rubber Clothing Co., whose works are at South Framingham, Mass., with office at No. 300 Federal street, Boston.

—The company manufacturing a substitute for litharge known as lithargite are the Nashoba Manufacturing Co., who expect soon to be in a position to have their goods upon the market.

—The making of hat-bag molds is a problem which few mold-makers care to tackle. The rubber must come out of the mold so evenly pressed that it will expand in every part equally, and this taxes the art of the machinist. Mr. Webb, of Webb & Watson, East Boston, is an expert in this line, and receives many compliments on the results he attains.

—The amalgamation of Elastic Web Workers, of Norwalk, Conn., have elected Arthur Williamson, Harmon Uebel, and David Chittam delegates to represent them at the meetings of the Central Labor Union.

—The Berlin Iron Bridge Co. (East Berlin, Conn.) have secured the contract for a new iron fireproof store-house for The Pope Manufacturing Co., at Hartford, Conn. The building will be 40 feet wide by 84 feet in length, two stories high, and will be used for storing the separate parts of bicycles, as the Pope company have to carry a very large stock of the different parts to supply the wants of the numerous users of the "Columbia Safety."

—The Canadian agents for the Lycoming Rubber Co.—Messrs. Harvey & Van Norman, of Toronto—have travelers all over the Dominion, and they report a sale of Lycoming goods up to date much greater than in any previous season.

—The Cleveland Rubber Co., in a letter to the Foster Engineering Co. (Nos. 21–23 Prospect street, Newark, N. J.), state: "We have had in use for several years a number of your Pressure Regulators on vulcanizing heaters and presses, and we are pleased to report that they have worked satisfactorily. You are doubtless aware that in the process of manufacturing rubber goods nothing is more important than a uniform heat in vulcanizing, and there is no doubt but that the high and excellent reputation of our goods and growing demand for same on account of durability and superior merit are largely due to our strict and careful attention to this important point."

—Lee Strauss, No. 1316 East Main street, Richmond, Va., announces under date of January 1 that he has succeeded the late firms of Straus, Reinhard & Co., wholesale rubber goods, and James River Tanning and Leather Co., leather and findings, and that he will continue the business of wholesaling rubber and leather goods.

—The Scranton (Pa.) Traction Co. have placed the contract for the buildings of their new plant with the Berlin Iron Bridge Co. (East Berlin, Conn.) The boiler- and engine-room will be 65 feet wide by 200 feet long, with a machine-shop and car-shed 93 feet wide by 225 feet long. The entire plant will be fire-proof, of the well-known Berlin construction.

—Henry F. Knowles, New England agent for the Globe Rubber Works, is happy over the fact that December, 1892, was the fattest December for business that he has ever enjoyed. He has already made extensive preparations for 1893's trade, and confidently expects it to be a big one.

—A great many bids are out for large lots of mackintoshes for political clubs, to be used on March 4, and it will be safe to say that there will be more mackintoshes worn by those in line than have been seen before in a procession. Some of the specifications for the big clubs call for as many as a thousand coats. Competition is sharp and active for these orders, and the clubs will be able to buy very low.

—The Rubber Reclaiming Co. report the following changes in the list of officers: N. C. Mitchell has resigned as president, R. M. Bassett as vice-president and secretary, and R. A. Loewenthal as treasurer. Edward R. Solliday has been elected as president, Dana Bartholomew vice-president, and N. C. Mitchell treasurer, to serve to July 3 next. C. E. Murray is secretary, and J. M. Stotesbury takes the place of Theodore S. Bassett as sales-agent.

—A section of wire insulated with the Kerite compound was recently dug up in New Jersey after it had been buried for twenty years. The insulation was still good,—in fact had outlasted the wire, which had begun to show signs of age.

—Sage & Co. (Boston), who are widely known as large jobbers of rubber boots and shoes, have taken a full line of rubber clothing to job. They devote two floors in their building to the goods and carry Mackintoshes made by the Hodgman Rubber Co. and the Apsley Rubber Co., and the luster and dull-finish goods, sheetings, and drills of the Cable Rubber Co.

—The United States War Department has advertised, through the Quartermaster's Department, for sealed proposals for 1000 rubber pouches, the bid expiring in Philadelphia on January 19 at 11 A. M. Proposals will be considered for pouches according to sample, and also according to the individual ideas of the manufacturers; also for deliveries at other points than Philadelphia. Samples can be seen at the Schuylkill arsenal. A preference is given to domestic goods when the price is not more than the addition of the duty to the quotation given with the foreign article. At the same time the bids for 2000 arctic overshoes will close, the same provisions applying as for pouches.

—The Wilmington (Del.) City Electric Co. have placed the contract with the Berlin Iron Bridge Co. (East Berlin, Conn.) The building will be made entirely of brick and iron, from the designs of the Berlin company.

—The vacancy caused by the death of John Van D. Reed, president of the Eureka Fire Hose Co. (New York) has been filled by the election to that position of M. L. Reed. The other offices are filled as before by B. L. Stowe as treasurer and George A. Weis as secretary.

—All the rubber which arrives in New Orleans from Central American ports is for transshipment to New York to various importing firms, and finds its way to the latter port by coastwise steamers. It is said that not a pound of rubber goes up the Mississippi to Western manufacturers, all taking their supplies by rail from New York.

—Nott & Co., the rubber dealers of Minneapolis, Minn., are to occupy the Harrison-Farrington building as soon as the concern vacates it for its new building, on First Avenue north and Third street.

—The Swedish Rubber Bootmakers' Society at New Haven, Conn., elected officers on December 14 as follows: John Hanson, president; Charles Hanson, vice-president; Joseph Kollerstrom, secretary and treasurer; Fred. Kollerstrom, August Nelson, and Wells Hendrickson, sick committee.

—The East Haddam Duck Co. (Leesville, Conn.) are again running at their full capacity, with new machinery and good prospects.

—If the mackintoshes manufactured by the Apsley Co. (Hudson, Mass.) are half as attractive in appearance as the representations of them upon an advertising panel received at the offices of THE INDIA RUBBER WORLD, it is not surprising that the demand for them is growing at such a rate that new hands to work at the factories are advertised for every few days.

—The Peerless Rubber Manufacturing Co. have placed with the Boomer & Boschert Press Co. (Syracuse, N. Y.) an order for four steam-presses, with three plates each, for their factory at New Durham, N. J.

—The Singer Sewing Machine Co. are occupying the offices recently vacated by the Wales-Goodyear Co. at Nos. 66-68 Lincoln street, Boston, when their removal to the Shoe and Leather Exchange building was made.

—The Goodyear Rubber Co. (Middletown, Conn.), it is stated, will erect a factory for making the varnish required in their business.

—John N. Haag & Co., No. 2316 Congress street, Houston, Texas, are mentioned as having begun the manufacture of rubber stamps.

—Ray & Co., of Brockton, Mass., recently advertised a closing-out sale of their furnishing goods to make room for a rubber-goods stock.

—The Western Rubber Co. have been organized at Portland, Maine, for the purpose of manufacturing and dealing in rubber goods, with $50,000 capital, of which $500 is paid in. The officers are: President, E. K. Stanwood, of Portland; treasurer, A. P. Butler, of Boston. The certificate of incorporation was approved December 15.

—H. P. Emerson, proprietor of the Emerson Rubber Co., (formerly the Massachusetts) has gone West on a brief business trip.

—Spinney, Virtue & Co. (Lynn, Mass.) increased their business in 1892 100 per cent. over the former year. They are meeting with decided success in making hard rubber for electrical work.

—Edward L. Henry (New York) is handling quite a lot of rubber clothing for eastern manufacturers.

—J. O. Stokes, Treasurer of the Home Rubber Co. (Trenton, N. J.), has just returned from a visit to his agencies in the West.

—A. R. Lacy has opened a new rubber store in Bridgeport, Conn. He will carry a full line of boots, shoes, clothing, mechanical goods, and sundries.

—Close managers will be interested to know that a large saving can be made in fuel and the labor of firing steam-boilers by the use of a well planned rocking-grate in the furnace. As the fire can be cleaned and kept in good condition without opening the fire-doors, the shaking-grate taking the place of the old slice-bar or poker, cold currents of air are kept from entering the furnace, and the labor is much lessened. These bars are largely used by rubber-manufacturers, and among the prominent makers are the National Iron Works, of New Brunswick, N. J., who are now sending out circulars of the "Standard" rocking-grate bar for which they claim special advantages. Some of their bars have been in use without changing for four or five years. A special feature is making the teeth of the bars removable, so that they can be replaced at small cost.

—The Monarch Rubber Co., of Brockton, Mass., and the Norfolk Rubber Co., of Boston, have been consolidated. The plant of the latter in Stoughton will be given up and all goods will be made at the Brockton mill. A feature of the consolidation that is in keeping with the times is the fact that each firm will continue its individuality, marketing their specialties under their old names.

—A paragraph that has been going the rounds of the newspapers and trade journals is sensational and entirely misleading. As it concerns the rubber trade directly, it may be well to correct its errors. The item stated that Mr. George Allerton had been dropped from the directory of the Goodyear Rubber Co. because he had secured a majority of its stock with the exception of three shares. The facts are that Mr. Allerton purchased about 1000 shares out of 20,000. He was not dropped from the directory, but still remains a director. There was no scene such as the gossips described, neither was there imminent danger of the control passing from the hands of those who built the company up and have so successfully managed it. The rumors seem to have arisen first because Mr. Allerton purchased stock at what seemed a fancy figure, but which represented its actual value, and second because he tendered his resignation as secretary of the company, Mr. F. F. Schaffer being elected to fill the vacancy. To correct another error, it may be stated that it was not the Goodyear Rubber Co., but the Goodyear Manufacturing Co., also known as the "India Rubber Glove Company."

—Loewenthal & Morganstern have issued a circular to the rubber trade, announcing the removal of their offices to Room 141, Stewart building, at Broadway and Chambers street, New York city.

—The American Wringer Co. (No. 99 Chambers street, New York), announce in their new catalogue and price-list that their large plant for the manufacture of rubber rolls, having a capacity of 6000 rolls per day, that has been in course of erection during the past year, is now completed, and that they are now making their own rolls.

—The Hammond & Cooley Manufacturing Co. (Batavia, N. Y.), write to THE INDIA RUBBER WORLD expressing their wish to get into communication with manufacturers of pedal rubbers. They expect to make about 25,000 pairs of pedals this year and wish to find the best place in which to obtain rubbers.

—The exports of rubber boots and shoes from Boston during the month of December amounted to 28,172 pairs, valued at $14,387. Of these the greater share went to England, amounting to 21,468 pairs.

—The Charles River Rubber Co. have purchased a tract of land at Cambridge, Mass., for the erection of a building for the manufacture of gossamer rubber clothing. One report is to the effect that they hope to be in operation by February.

—A fire-alarm was sounded from the Boston Rubber Shoe Co.'s factories at Edgworth on January 2. The Fire Department responded promptly, but the company's private engine was sufficient to stop the flames.

—President George Watkinson, of the Colchester Rubber Co., paid a visit during the last week of December to Chicago, where one of the company's largest wholesale houses is located.

—The Columbus Rubber Co., of St. Louis, have filed articles of incorporation, the capital stock being placed at $25.000, of which one-half has been paid in. Henry F. Cook holds 170 shares, H. W. Huthsing, Jr., 50 shares, and Clarence C. Smith 30 shares.

—Among recent building permits in Brooklyn is one granted to Rindskoph Brothers, No. 701 Madison street, for a brick storage warehouse for rubber, to cost $300.

—The Candee, Goodyear, and American Rubber companies have subscribed $6000 to the Shoe and Leather Building, at the World's Fair. These companies, in connection with the Woonsocket and Boston Rubber Shoe companies, which had previously contributed, will make an elaborate display of their products.

—Among the various rumors concerning Mr. August Straus, formerly of the New York Belting & Packing Co., is one that he is to go with a large Detroit house engaged in the manufacture of bicycle tires. Another is that he is to be connected with an Indianapolis concern for the manufacture of the same goods. The third, which is the most probable, is that he is to be the head of a rubber-manufactory which will erect a $100,000 plant at Seventy-third street, New York city, for the manufacture of general mechanical goods and emery wheels. The report comes from Trenton, N. J., that he has already ordered machinery there, to be shipped to New York.

—A feature of the new Boston offices of the United States Rubber Co. will be their telephone connection, they having a room set apart for this which will be in charge of a diminutive darkey clad in livery. In the telephone department will be four private rooms, one for long-distance and one for local telephones, besides a private wire to the works of the American Rubber Co. and another to the storehouse of the United States Rubber Co. Each of these rooms will be lighted by electricity and provided with all the latest conveniences known to telephoning. The fitting up of these offices has been under the direct supervision of George H. Quincy, of the Candee Rubber Co., and he has succeeded wonderfully in getting good results and in pleasing all the occupants of the offices.

—Captain Willard L. Candee, American manager of the Okonite Co., Limited (New York), sailed on December 31 on the North German Lloyd steamship *Saale* for London, on business connected with the company.

—Mr. Hamilton Lockwood, of the Newton Rubber Co. (Boston), has been ill for some weeks past, the result of an accident to a train upon which he was riding. No lives were lost, nor bones broken at the time of the accident, but all received a thorough shaking-up.

—THE INDIA RUBBER WORLD is indebted to Messrs. Simpson & Beers, brokers in India-rubber, No. 58 William street, New York, for a sheet of statistics of Pará rubber for the past five years, showing stocks in New York at the end of each month, and also highest and lowest prices during each month in the years referred to.

—The New Jersey factory of the United States Rubber Co. will make in tennis in balmorals, the "Rover" and "Pedestrian" brands, and in Oxfords, the "Ramblers" and "Tourists." They will be made in blacks and checks, and other colors will be on order only. Firsts will be branded as of yore "New Jersey Rubber Shoe Co."

—The Hartford Rubber Works Co. have filed with the Secretary of State of Connecticut a certificate of increase of capital from $20,000 to $200,000. The original capital was in 800 shares of $25 each, which were changed to 200 shares of $100 each. The capital was then increased by the subscription of 1800 shares of $100 each in cash, making the capital $200,000 in 2000 shares.

—The Long Island Rubber Co. have been incorporated under the laws of New York State, to have offices in Brooklyn, with $10,000 capital. The directors for the first year are: William M. Norton, Samuel J. Norton, Henry H. Disosway, and John R. Sawyer of Brooklyn, and Francis S. Hume, of New York.

* * *

RUBBER TIRES.

THE bicycle papers seem likely to reap a harvest on account of the advertising growing out of cross suits between the American Dunlop Tire Co. and the Phelps & Dingle Manufacturing Co., each of which claims that the other has been infringing its patents on rubber tires. The Phelps & Dingle Co. claim that the "1893 Dunlop" tire is an infringement on their "Ideal" tire. Both parties are largely engaged in the manufacture of tires. The American Dunlop Co. are the result of a recent consolidation of bicycle-manufacturing interests of large proportions and international connections.

—The Phelps & Dingle Manufacturing Co. show in their advertisements a view of a factory at Passaic, N. J., devoted entirely to the manufacture of their pneumatic tire. The floor space amounts to 16,000 square feet, and the daily capacity of the works is 2000 tires.

—In a suit recently decided in the United States Court in Connecticut the plaintiffs, the Pope Manufacturing Co., and the Overman Wheel Co., won their case against a representative of A. Featherstone (Chicago), claiming that the "Road King" and "Road Queen" bicycles manufactured by the latter, on which is used a rubber pedal of a particular design, involved an infringement of patents belonging to the plaintiffs. The principle involved in the alleged infringement is in the pedal rubbers turning on the shaft so as to conform to the shape of the foot.

—The lightest "wheel" in the world up to date, the handiwork of P. J. Berlo, the racing man, weighs just eleven pounds and eleven ounces. The rubber tires, made by P. J. Rumscheid, of South Boston, Mass., weigh twenty-two ounces to the pair, and are held on the rim by inflation. This wheel has been used successfully by a man weighing 200 pounds, without injury to it.

—Morgan & Wright (Chicago), whose factory was mentioned in our last issue as having been badly damaged by fire, advertise that they resumed work on the day following, and that they are now busy twenty-four hours a day filling orders for pneumatic tires.

—At the great National Cycle Show in Philadelphia, which closed on January 14, the rubber trade was directly represented by the New York Belting and Packing Co., with their famous French pneumatic tire, and by the Columbia Rubber Works Co. (New York), who represent the Palmer tire, manufactured by the B. F. Goodrich Co., and illustrated and described in another part of this paper.

—The Tillinghast Pneumatic Tire Co. (Providence, R. I.) state that there were made during the last year 30,000 of their Tillinghast tires. For 1893 they present a road tire weighing

five pounds to the pair, a light road tire weighing four pounds, and a racing tire weighing only three pounds.

* * *

INDIVIDUAL MENTION.

SENOR F. BODO CLAUSEN, of Braillard, Clausen & Co., Revera-Ite, Bolivia, was in New York recently, sailing for Colon on December 20, on his way home. His company are largely engaged in the rubber business in Peru. Senor Clausen is of the opinion that Major Kerbey, in writing to THE INDIA RUBBER WORLD that large forests of rubber trees hitherto unknown had been discovered near Cusco, on the Ycayoli, had been misinformed. His company had made a thorough exploration of the country below Cusco without discovering any such forests as Major Kerbey supposed to exist. He states, however, that the river is navigable for 800 miles below Cusco to Iquitos, and that there may be plenty of rubber at points which were vaguely mentioned in Major Kerbey's letter. Senor Clausen was somewhat surprised at the enterprise of a trade journal in this country in seeking and obtaining information from such a distance.

—Recent letters received at this office from Norton & Co., the Pará representatives of the New York Commercial Co., were signed for the firm by Mr. Francis Grauert, who was so long and so pleasantly known in New York while he was identified with the South American export trade here. The friends of Mr. Grauert will be pleased to learn that he has recovered from the serious illness contracted on his recent trip to Manáos. He expects to visit New York in April, his family having already arrived here. His daughter was recently married in New York and will probably not return with him at the end of his vacation.

—Mr. Robert D. Evans, president of the United States Rubber Co., will reside in New York at the Hotel Renaissance, in East Forty-third street.

—Major J. Orton Kerbey, whose letters reporting his voyage upon the Amazon appeared recently in THE INDIA RUBBER WORLD, arrived on November 3 on the Pacific at the port of Paseasmayo. He was uncertain, when last heard from, in what direction he would continue his explorations of equatorial America.

—H. H. Francis, late secretary and manager of the Hartford Conn.) Rubber Works Co., having resigned his position and severed his connection with the company, is taking a much needed rest and has just returned from a four weeks' trip in Florida.

—Mr. W. F. Bass, of W. R. Grace & Co., was in Boston last week, the guest of A. H. Yeoman, of the Boston Rubber Shoe Co., at Malden, Mass.

—H. B. Titus, salesman for the Davol Rubber Co. (Providence), is quite ill at his home in Brooklyn, N. Y., and is receiving many expressions of sympathy from the trade.

RUBBER SALESMEN ON AND OFF THE ROAD.

THE accompanying excellent likeness needs no introduction to most readers of THE INDIA RUBBER WORLD. It will be recognized at a glance as representing the features of James D. Ferguson, of the Goodyear's India Rubber Glove Manufacturing Co. (New York). Mr. Ferguson is, in every sense of the word, a veteran of the road, and hence it is with much pleasure that THE INDIA RUBBER WORLD begins a series of sketches of rubber salesmen with a short history of the oldest and most widely known traveler of the day in rubber goods. Mr. Ferguson is a New Englander, having been born in Massachusetts, and from the very start he has been intrested in the rubber business. His initiation took place in 1856, when he joined Hartshorne & Co., of Providence, R. I., who were early manufacturers of rubber boots and shoes. Mr. Ferguson started at their Boston office, No. 13 Central street, at a time when the rubber boot-and-shoe manufacture was in its infancy. After a few years in "the Hub," the larger field of New York claimed his attention, and he was several years with the Bishop Gutta Percha Co., then located at No. 181 Broadway. In those days a rubber store on Twenty-third street would have been considered in the backwoods. In fact, any store dealing entirely in rubber goods would have been a novelty to a Gothamite of that day. It was in 1866 that Mr. Ferguson connected himself with the Goodyear's India Rubber Glove Manufacturing Co., and he at once took the road for this well-known company, then engaged largely in the manufacture of rubber gloves—of which they were the pioneers—and also in the manufacture of rubber clothing and druggists' sundries. He has been with the same company ever since. During his twenty-seven consecutive seasons he has "made" every town of note, sold nearly everything that is made in his line, and met every buyer who has been, or is, known in the market. In fact, Mr. Ferguson is so well known to the trade that a review of his successful efforts would appear almost superfluous, but something may be said in regard to his developing his company's celebrated specialty, which is known all over the country for its perfection in manufacture. In the introduction of the rubber glove, boot, and shoe, Mr. Ferguson has played an important part from the beginning, and the placing of these goods with the very best class of trade has had much to do with their great

success. For the first fifteen years after his commencement with the company Mr. Ferguson was their only traveler, and he then covered an immense territory, but as the line increased

Mr. Ferguson found that he could only do justice to a smaller area, and his friends in some localities now see him only occasionally. A trip through Europe, on business and pleasure combined, made by Mr. Ferguson in 1881, proved profitable as well as pleasant. When the rubber-clothing trade was at its best, several years ago, and when there seemed to be an unlimited demand for the fancy stripe and check rubber-surface coats, Mr. Ferguson booked some orders, which for quantity and price of the garment would be revelations to some of the salesmen of the present time. Though in the "fifties," Mr. Ferguson is more active than many of his younger competitors, and being blessed with the best of constitutions he has a promise of many years of active service before him. Mr. Ferguson is a bachelor and claims New York as his home.

* * *

DEATH OF GEORGE H. MEEKER.

IN the recent death of George H. Meeker, in Chicago, the rubber trade loses one of its foremost and energetic young men. Mr. Meeker died from peritonitis caused by swallowing an orange-seed. He had been on to his grandfather's funeral in New York, and his friends had remarked how well he was looking. It is supposed he took cold on the train, which aggravated the trouble. Mr. Meeker was all his life in the rubber business. At the early age of fourteen he started in with the Fairfield (Conn.) Rubber Co. and was for years in their mill, where he obtained a practical knowledge of the manufacture of clothing and carriage cloth. Wanting a New York selling-agent, Mr. Harrol, of the Fairfield company, decided to put Mr. Meeker in this position, and it was not long before he showed his decided fitness as a salesman. After leaving the Fairfield company in New York, he accepted a position as manager of the clothing department for the Metropolitan Rubber Co., and when this company started their western branch in Chicago, for the sale of insulated-wire especially, Mr. Meeker took charge, and there he has been ever since. Mr. Meeker was widely known in the trade and he made friends everywhere. Shortly before leaving for the west he was married, and his young wife survives him.

* * *

SHORT TRIPS.

W. D. MAXWELL, for several years past representing the Hodgman Rubber Co., has taken a position as salesman with the Columbia Rubber Co., of Boston. Mr. Maxwell is well known in New York State, where he had a large trade.

—The Home Rubber Co. (Trenton) have recently secured the services, as traveling agent, of Mr. W. G. Bergen, who will be well remembered as having been with the Trenton Rubber Works.

—E. R. Burley, Chicago agent, and William H. Corner, Jr., New York agent for the Boston Rubber Co., spent a week recently in Boston getting ready for the coming season in mackintoshes and other lines manufactured by their company. Mr. Burley returned home to Chicago in time for Christmas, and Mr. Corner spent the day in his former home, Baltimore.

—Several of the Baltimore rubber jobbers have increased the number of their salesmen for the coming year.

—Silas H. Jenkins, so well known as having been for years with the Hodgman Rubber Co., will take charge of their western business on the road in the near future. Mr. Jenkins will no doubt be located in Chicago most of the time, where he will have a large field for operations in the lines manufactured by his company. He carries the best wishes of his many friends in the east and south for success in his new territory.

—G. H. Proctor, of the Boston Rubber Co., after having been confined to the house for two weeks, is about again as usual.

—Ed. L. Boyee begins the first of the year with Messrs. George B. de Keim & Co. (Philadelphia), which house has always been a large factor in the trade in rubber carriage-cloths and horse-covers.

—Alexander M. Paul, for the last four years manager of the Conant Rubber Co.'s Hartford branch store, has retired from the rubber business, and has accepted a position as secretary and treasurer of the Standard Musical String Co., a new corporation lately started in Andover, N. J. Mr. Paul has been the successful manager of the Hartford house since Charles D. Cugle's retirement, and his friends in the rubber business will be sorry to learn that he has left the rubber line and will wish him success in his new departure. Under Mr. Paul's management business was greatly increased in Hartford. J. R. Pitkin, well known in Hartford as being associated with Mr. Paul, will continue the management.

—George W. Sanders, accompanied by Charles C. Peters, of the Sanders Duck and Rubber Co. (St. Louis, Mo.), paid a visit to "the Hub," Christmas week, on business connected with A. J. Tower, the well-known oil-clothing manufacturer. The Sanders Company are the St. Louis agents for the Tower oil-clothing. Mr. Peters has charge of the mechanical-rubber department and will be remembered as having formerly occupied a similar position with the Simmons Hardware Co.

—The salesmen connected with the American Rubber Co., in New York started during the past week for their respective sections. G. B. Widner has gone to Pennsylvania, H. Bloom through New York State, and C. H. Bishop to Virginia.

—D. A. Hawkins, formerly with the Metropolitan Rubber Co. has taken a position with the American Rubber Co., in New York.

—C. Weeks, Jr., who has been a rubber-boot and -shoe salesman for many years, and connected with some of the largest companies, takes charge of the retail boot- and shoe-department opened by the Commonwealth Rubber Co., No. 54 Vesey street, New York.

THE Peerless Manufacturing Co. have a plant in Cleveland where they turn out, as one of our exchanges expresses it, "such incongruous articles as clothes-wringers and bicycles." As rubber enters to an important extent into the manufacturing of each of these articles, however, it is only natural that they should both be produced from one establishment.

THE Indianapolis Rubber Co. is the name of a new concern which has been organized in Indianapolis, Ind. H. E. Galloway is the president, and E. Smith secretary and treasurer. The other principal stockholder is R. Zener. They will manufacture various kinds of rubber goods and will devote special attention to pneumatic tires, making the regular inner tube tire.

THE Toledo (Ohio) Rubber Co. occupy a large space in the advertising columns of the Toledo *Blade* free of charge, this being their reward for winning in a recent novel contest. The *Blade* invited its readers to express their opinion as to the most artistic and attractive show window in any store in the city. Votes were received for more than a hundred firms, and the rubber company proved to be the most popular candidate for favor. Their stock consists of rubber clothing, mechanical goods, and druggists' supplies.

IT is said that the Eastern Rubber Manufacturing Co., recently organized at Trenton by the Hon. Frank A. Magowan and his associates, expect to give employment to 300 or 400 men.

The Rubber Business is Growing.

THE business in crude rubber is constantly growing, said A. H. Alden, of the New York Commercial Co., to a representative of THE INDIA RUBBER WORLD. Not only is the demand from all the older lines of manufacture as large as ever, but new uses for rubber are constantly being developed. The most striking of these new uses is in the manufacture of bicycle-tires. The large use of the bicycle makes of these tires a practical and staple article, and only the best of rubber will suit the purposes of the manufacturer. This business must necessarily be much larger in the future.

Rubber boot- and shoe-manufacturers have been very much hampered, until within a year past, in marketing their product, owing to a succession of mild winters. This has led to a reduction in prices of goods, caused by an excessive competition among themselves. The past year, however, has seen considerable change, and the accumulated stocks which the manufacturers had on hand have been sold, until it is said that jobbers are again short of goods. With such a winter as we are now having goods will continue to pass out of retailers' into consumers' hands, and the tendency will be to give an impetus to the trade next spring and summer. Everybody in the chain from manufacturer to consumer will have smaller stocks than they have had at the end of the season for many years. An important feature of the trade during the year has been the organization of the United States Rubber Co. It is expected that through this combination greater economies will be effected, and at the same time purchases of crude rubber and other supplies can be made to better advantage. One result will be that a deterrent will be interposed to the great fluctuations that sometimes occur in the chief article used in the industry.

It is somewhat difficult to state whether or not the receipts at Pará have fallen off as compared with last season. We are in the middle of the crop year, which does not end until June 30. Thus far the receipts at Pará have been lighter than during the first half of the previous crop year, but we are advised by correspondents that this is because the Amazon and its tributaries have not risen this season so early as usual, and that we may expect larger receipts later in the season.

A comparison of the crops of the two previous years may throw some light on the question whether the production of Pará rubber is increasing. The receipts at Pará were as follows:

For the year ending June 30, 1891.....	12,561 tons.
For the year ending June 30, 1892.....	18,550 tons.
Increase (47 per cent.)	5,989 tons.

The production of Centrals seems to be at a standstill of late years, falling off a little in each twelve months, but practically about where they were twelve years ago, the last crop year showing comparison essentially that fact. The extent of territory producing each class of rubber is small and while other causes may be at work the aggregation of labor, territory, and capital is wanting to increase, except in a very slow way the production of those smaller countries.

The African sorts are coming to this country more freely, however, especially those of the better grades. For many years the Africans that came to us were of the lowest qualities, but gradually better grades have been coming forward and such are now largely taking the place of Centrals. India formerly sent us large quantities of rubber, especially of grades from Calcutta and Borneo, but the importations from this country have now dwindled to a very small proportion. The east coast of Africa formerly sent us large quantities of rubber, the sources of it being Mozambique and Zanzibar, and was an important factor. Latterly Mozambique has been sending large quantities to Hamburg, and that port is shipping to us in 100-ton lots, a revival of the old business in those sorts.

There is very little to say about the routine of trade in New York, which is the rubber market of the continent, and which the city hold simply because all lines of transportation center here. Comparatively little is used in the city and the bulk of it has to be lightered or trucked across the city, as expensive as the bringing of it from the ports near the forest, but there seems to be no help for this. Rubber is a commodity requiring large capital to handle it and the channels through which it flows are as much affected by questions of finance as of mileage, and changes in its marketing are seldom, especially if the transportation is made up of beaten and concentrated paths.

A New Company in New Jersey.

THE Hon. Frank Magowan has organized another rubber company at Trenton, N. J., which has been incorporated as the Eastern Rubber Manufacturing Co. for the manufacture and sale of mechanical rubber goods and other kinds of vulcanized rubber goods and fabrics. The principal place of business is to be at Trenton, where the principal offices will be located. Other offices will be located in New York city and elsewhere. The total amount of the capital stock is $250,000, in shares of $100 each. The amount with which the company will begin business is $202,000. The names of the stockholders,—all of whom reside in Trenton,—and the number of shares held by each, are as follows: William H. Skirm, 600; Frank A. Magowan, 1200; William P. Hayes. 50; Allen Magowan, 50; George R. Cook, 50; William H. Skirm, Jr., 50; and Garret D. W. Vroom, 20. The organization of the company dates from January 10, 1892, and the period for which it has been incorporated is fifty years. The company have secured the services, as superintendent, of William H. Aldredge, who is well known as a skillful maker of mechanical rubber goods, and is the inventor of several labor-saving machines in this line. The new company have purchased the plant of the old Hamilton Rubber Co., of which Mr. Magowan was lately the receiver. It embraces ten mixers, four calenders, two belt presses, ten small presses, a complete outfit of vulcanizers, molds and other machinery for making belting, packing, hose, etc. Mr. Aldredge is now overhauling and putting in shape the machinery for an early start. The company expect to be running on regular lines of mechanical goods by February 1. It is also said that they will manufacture bicycle-tires, and are erecting a special building for that purpose.

Removal of The New York Commercial Co.

THE New York Commercial Co. in December moved into their new quarters in the Morris Building, on the southwest corner of Broad and Beaver street, New York. The company occupy the entire third floor of the building, while Flint & Co., export commission merchants, take the entire fourth. The distinguishing feature of the apartment is that it is not divided into smaller rooms. There is a small ante-room for visitors, and a room also for the meeting of the directors of the company, other divisions being made by grille work. This allows the whole room to be flooded with light. Indeed the officers of the company seem to glory in plenty of light on their transactions, for the electroliers in the room are so thickly placed that one has to look twice to see the decorations of the ceiling above, and the windows are almost as numerous as in a greenhouse. The finishing of the room is in oak, and the desks for heads of de-

partments and officers are of the same material. There is a large space devoted to the rubber samples, and here heaps of Africans, Centrals, and Parás appeal to the broker for early purchase and removal.

The room is at once immense and handsome in a superlative degree, and so far different from the old quarters in Pearl street that the office boys do not like to leave it at night for fear that they may wake up and find it all a dream. Naturally there is every convenience in the room in the shape of telephonic and telegraphic facilities, the long-distance and local companies each having their wires, while a strictly exclusive Morse circuit extends into the Boston office of George A. Alden & Co.

The company have lately increased their capital from $600,000 to $2,000,000. The officers are George A. Alden of Boston, president; A. H. Alden, vice-president; W. B. Flint, treasurer; and D. A. Debyse, secretary. The threads of communication which go out from this company reach every section of the world, and when one considers its relations with Flint & Co., whose control of shipping is very large, and the intimate connection with the United States Rubber Co., and the new Mechanical Rubber Co., the extent of their transactions is greater than the entire commerce of some of the countries with which it has dealings.

By the way, the building referred to will be a landmark of considerable historical interest, commemorating, as it does, the "gallant and patriotic efforts of Marinus Willett (subsequently Sheriff and Mayor of New York, and president of the Electoral College) in here seizing June 6, 1775, from British forces the muskets with which he armed his troops." A memorial tablet prominently placed on the front of the building attests these facts.

Germany's Foreign Rubber Trade.

THE importation by Germany of crude India-rubber and Gutta-percha for the first nine months of 1892, as officially reported, do not show as large a percentage of increase over the same months of 1891, as was foreshadowed by the returns received earlier in the year. This is due principally to the fact that only 790,920 pounds were imported during September, against 1,111,880 pounds in the same month of 1891. The following comparative statements are for periods of nine months, expressing quantities in pounds:

	1891.	1892.
Imports, January-September	7,281,560	7,506,180
Exports for the same period	1,118,700	1,661,880
Remaining for Consumption	6,162,860	5,844,300

The exports of manufactures of rubber are shown in the table below for corresponding periods in the two years, all figures relating to pounds:

	January-September.	
EXPORTS.	1891.	1892.
Hard Rubber in Mass	22,470	50,160
Rubber Threads	183,920	204,820
Coarse Soft Rubber Goods	1,652,200	1,737,560
Fine Soft Rubber Goods	840,400	1,418,120
Finished Hard Rubber Goods	775,940	777,920
Rubber Toys	1,136,520	509,740
Tissues Woven with Rubber	523,600	576,840
Elastic Hosiery	21,780	29,260
Waterproofed Hempen Tissues	135,080	172,480
Unclassified Wares	1,320	1,320
Total	5,293,230	5,478,220

With regard to the imports of manufactures of rubber, there was, during September, a marked increase in soft rubber goods, fine and coarse.

Some Figures From the New Census.

THE Census Bulletins devoted to manufacturing statistics, so far as issued, contain the following figures relating to the rubber-manufacturing industry:

RUBBER AND ELASTIC GOODS.	Bridgeport, Conn.	Lowell, Mass.	New Haven, Conn.	Chelsea, Mass.
Number establishments	4	3	4	8
Capital employed	$306,200	$197,088	$247,350	$2,709,814
Wages paid	156,048	68,328	108,060	482,887
Materials used	323,695	146,395	265,976	1,891,102
Miscellaneous expenses	15,838	11,769	47,534	213,034
Goods Manufactured	567,098	270,429	768,710	2,796,649
Average hands employed	287	172	215	945
" males above 16	155	50	204	556
" females above 15	78	67	1	177
" children	...	6	...	...
" piece-workers	54	49	10	212

It is announced that the statistics of no industry will be given in these Bulletins for any town having less than three establishments of the same class. Any deviation from this rule would have the effect of making public the details of a private business.

The Para Movement for 1892.

THE statement which appears below, of imports of the various grades of Pará rubber for the past year, with comparisons with the preceding year, comes to THE INDIA RUBBER WORLD with the compliments of De Long, Betts & Co., of New York:

MONTH.	ARRIVALS.			DELIVERIES.			STOCK AT END OF MONTH.		
	Fine and Med'm	Coarse	Caucho	Fine and Med'm	Coarse	Caucho	Fine and Med'm	Coarse	Caucho
JAN.	580	276	39	603	283	57	670	78	19
FEB.	994	357	106	959	312	112	705	123	13
MARCH	810	279	80	856	277	80	659	125	13
APRIL	664	285	229	698	226	91	625	184	151
MAY	431	186	58	521	269	58	535	101	151
JUNE	379	123	58	503	156	100	411	68	109
JULY	206	114	112	188	107	137	429	75	84
AUG.	303	169	102	269	155	138	553	89	48
SEPT.	388	148	35	363	151	38	578	86	45
OCT.	298	73	6	274	98	31	602	61	20
NOV.	548	190	57	577	202	64	573	49	13
DEC.	1,292	354	74	1,056	377	80	809	26	
	6,983	2,554	956	6,867	2,613	986			

	Fine and Medium.	Coarse.	Caucho.	
Stock 31st Dec., 1891,	693	85	37	Tons.
Arrivals, year 1892,	6,983	2,554	956	"
	7,676	2,639	993	"
Stock 31st Dec., 1892,	809	26	7	"
Deliveries, 1892,	6,867	2,613	986	"
Exported to Europe,	279	155	20	"
Deliveries to Consumers in America,	6,588	2,458	966	"

PROTESTS OF RUBBER-CLOTHING IMPORTERS.

By I. A. Sherman.

AT a hearing before the Board of General Appraisers of the Customs Department, held in New York, December 22, two claims were made by importers relative to a reduction of duties on certain lines of foreign manufactured goods composed partly of rubber, or in competition with it.

The importers are seeking to extend the benefits which they obtained in the decision given last summer by the Board and stated at length in the September issue of THE INDIA RUBBER WORLD. At that time it was claimed, and the claim was allowed, that, when a class of goods was mentioned in the Tariff law under a trade name, they should be dutiable thereunder. Before that decision was made woolen goods included mackintosh cloth, and were dutiable at the rate of 49½ cents per square yard and 50 per cent. *ad valorem*. But the importer claimed that Paragraph 369 included mackintosh cloth and that goods of that class ought to be dutiable as such, that paragraph specifically mentioning waterproof cloth. Although this was clearly not the intent of the Tariff law, the Board divided on the question, giving the claim, by a majority vote, to the importer, laying down a principle at the time which seems to be the beginning of trouble for the mackintosh-manufacturer as well as to the woolen-man and to some other lines.

It is to the point to say here that, if the domestic interests which are in jeopardy should take some concerted action, they possibly could shield themselves from the blows that are raining down upon them. The last election removed all hope of relief by any future act of Congress, and these decisions, unless speedily reversed, will stand for all time.

The shrewdness and skill of the importer is worthy of comment. He gets the principle laid down, and then he takes up one branch of manufacture after another and wins a point in its application. His business acumen teaches him that, if he should attack everything at once, he might arouse a concert of action which would defeat his purpose. There are two sides to the question, and the right may be his, or it may not be, but in obtaining his supposed justice he is not disposed to be foolish in his method. He does not undertake to break a bundle of sticks at once, and great interests are paying little attention to what is going on, and not a word of protest is lifted up in behalf of home production.

The attack is now made upon carriage-aprons. They are made of double-texture woolen with waterproof materials incorporated in them. Heretofore they have been dutiable as goods with wool as the component part of chief value. The claim is that they should be classified as waterproof goods and come under Paragraph 369, which would make them dutiable at the rate of 15 cents per square yard and 30 per cent. *ad valorem*. Stress is made in the argument that an apron is a complete article made from waterproof cloth.

Another and similar claim is made for cravenette. This is a peculiar article made abroad and is made up there in ladies' cloaks, men's coats, robes, etc. It is waterproofed by a process unknown to the experts who testified at the hearing, but its qualities are undoubted, testimony being given to the effect that pieces of it had been stretched for weeks with a deposit of water upon the upper surface, but at the end of that time the under portion was perfectly dry. Cotton duck and cloth can be woven now so finely as to hold water; still, if one presses a finger under the latter, a stream will follow, but the former is proof against this test. These goods can be imported very cheaply, and the inference from the agitation of these two subjects is that there are many other articles in reserve. The decision has not been announced and probably will not be for a few days. There will be no more hearings before the Board for several weeks to come.

IMPORTATIONS OF INDIA-RUBBER, MONTHLY, DURING 1892, IN TONS.

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	UNITED STATES.					EUROPE.				
MONTHS.	Parás.	Centrals.	Africans.	East Indian	Totals.	Parás.	Centrals	Africans.	East Indian	Totals
January	1,202	185	210	10	1,607	1,156	25	309	80	1,570
February	1,156	126	164	43	1,489	1,061	56	381	47	1,545
March	1,474	120	569	70	2,233	619	69	470	21	1,179
April	886	99	330	53	1,368	276	28	430	64	798
May	680	161	181	51	1,073	227	8	507	94	836
June	545	101	302	56	1,004	157	77	331	128	693
July	619	102	245	78	1,044	95	47	349	131	622
August	480	115	136	47	778	235	32	347	59	673
September	560	95	205	20	880	543	34	350	45	972
October	420	110	212	25	767	576	43	284	52	955
November	783	190	502	30	1,505	798	84	326	11	1,219
December	1,698	148	394	41	2,281	519	39	435	19	1,012
Totals	10,503	1,552	3,459	524	16,029	6,262	542	4,519	751	12,074

An Inquiry for Miners' Coats.

AN important jobbing firm in the Far West send to THE INDIA RUBBER WORLD to learn where to buy miners' heavy coats. They add: "We have quite an outlet for these goods and desire to connect ourselves with some of the best manufacturers." Any parties desiring to correspond with the inquirers may do so through the office of this journal.

JANNEY & CONGDON, of Baltimore, who will retire from business on February 1, are now selling out their stock. A new incorporated company has secured the lease of their well-known store, No. 12 North Charles street, and have also purchased their stock and fixtures and will conduct a general rubber business. T. N. Conrad, of Camden, N. J., who has been many years in the mechanical rubber department and was with the Star Rubber Co., of Trenton, for twelve years, is said to be the manager of the new corporation. Associated with him, as treasurer, will be Lewis C. Dietsch, who has been the financial manager of the late company in Baltimore ever since their start. Richard E. Higgins will also be associated in the concern.

S. F. DOTY, of the Atlas Rubber Co. (New York), said to a representative of THE INDIA RUBBER WORLD: "In druggists' sundries the year has been a very good one, our sales having been 40 per cent. in excess of any former like period. Prices have been fair, not high. We have opened up a good trade with Mexico, Mr. Herbert having, during the summer, put in some good missionary work in that country, and we have also extended our western and southern business very materially."

REVIEW OF THE RUBBER MARKETS.

THE crude-rubber market for the past thirty days has been largely of a holiday character. While it may be said that there is an absence of speculation in this commodity the situation has its peculiarities. There are a few who believe in better prices in the future, and such parties are from time to time adding to their holdings, while there are others who are content with small profits, and they are feeding the market. The distinguishing feature of 1892 was the remarkable steadiness of prices, the variation being within narrow limits. Possibly this may be ascribed to a factor which is now about passing away. After the Vianna failure some parties found themselves well loaded with rubber, and this was a factor of such proportions as to warrant the assertion that those accounts have not been altogether liquidated. Some of these holdings have come on to the market within the past month, and it is surmised that there are now one hundred tons more for sale at the right moment. There are those who cannot foresee any improvement of a substantial nature in the next two or three months, and are willing to sell on bulges, either spot or for future delivery. The basis for higher prices in the future is upon the theory that Vianna stimulated in his deal an overproduction and created a surplus upon which the manufacturers are feeding, that this surplus is gradually being used up in the large consumption of goods and that present production is not equal to the current wants of the people.

The receipts at Pará were five hundred tons less for six months past than in the same time in the previous year, and according to past experience it is said that the season will soon begin to wane, and that while the laws of supply and demand will not by any means be negatived the latter word in the phrase will assume the master hand. Manufacturers are, it is thought, well supplied with rubber, having bought largely for March and April.

December deliveries of Pará were 1056 tons fine and medium, 377 coarse and 80 caucho; and the arrivals 1294 tons fine and medium, 354 tons coarse and 74 tons caucho, all of which make it the banner month of the year.

The world's visible supply of Pará rubber on December 31, compared with a date one month before, and one year before, was as follows, amounts being stated in tons:

	December 31, 1891.	December 31, 1892.	November 30, 1892.
United States	778	835	622
Liverpool	485	654	748
Pará	1345	780	380
Afloat	1055	1440	1550
Totals	3663	3709	3300

The figures in the foregoing table are not "bullish," except perhaps in the situation at Pará.

Centrals are in light supply with all sales "to arrive." There has been a steady market for Africans with a good business.

The latest quotations in the New York market are:

Pará, fine, new	69@71	Sierra Leone	24@40
Pará, fine, old	73@75	Benguela	47@48
Pará, coarse, new	48@53	Congo Ball	36@42
Pará, coarse, old	51@55	Small Ball	33@36
Caucho (Peruvian) strip	49@50	Flake, Lump and Ord.	26@27
Caucho (Peruvian) ball	54@55	Mozambique, red ball	———
Mangabeira, sheet	36@40	Mozambique, white ball	———
Esmeralda, sausage	52@53	Madagascar, pinky	58@60
Guayaquil, strip	40@42	Madagascar, black	42@44
Nicaragua, scrap	49@50	Borneo	28@43
Nicaragua, sheet	47@48	Gutta-percha, fine grade	1.75
Guatemala, sheet	38@43	Gutta percha, medium	1.15
Thimbles	39	Gutta-percha, hard white	1.15
Tongues	35@40	Gutta-percha, lower sorts	nominal

The statistical position of Pará rubber in New York is thus reported for December, 1892, as compared with the same month in preceding years:

Stock of Pará here,	November 30,	about	1,170,000 pounds.
Receipts	December,	"	3,760,000 pounds.
Deliveries	December,	"	3,370,000 pounds.
Stock	December 31, 1892,	"	1,560,000 pounds.
Stock	December 31, 1891,	"	1,300,000 pounds.
Stock	December 31, 1890,	"	1,500,000 pounds.

PRICES FOR DECEMBER.

	1892.		1891.		1890.	
	Fine.	Coarse.	Fine.	Coarse.	Fine.	Coarse.
First	66½	46½	65	48	72	50
Highest	67	47⅛	65	48	78	55
Lowest	65⅛	46	63	43	67	44
Last	57	47½	63	43	77	55

In regard to the financial situation Messrs Simpson & Beers, brokers in crude India-rubber and commercial paper, New York, advise us as follows:

"A moderate amount of rubber paper was placed during December, at rates favoring the buyer, viz.: 6 to 7 per cent., and the demand has been mostly from the out-of-town banks. The export of gold was again a disturbing feature, unsettling our money market, and inducing pronounced conservatism on the part of our bank officials. An easier money market will probably rule later in the month."

The market for manufactured goods has been active. In mechanical goods a fair business has been done, although in December stock taking among retailers is considered more impor-

tant than the purchase of goods. Business in boots and shoes has been heavy with a scarcity as usual of warm goods. The demand for clothing is excellent for high grades. The clothmen are feeling their way to higher prices.

* * *

TRADING IN RUBBER STOCKS.

SINCE the last issue of THE INDIA RUBBER WORLD the Governing Committee of the New York Stock Exchange have admitted to the regular list of the Exchange both the preferred and common stock of the United States Rubber Co. The application to have the two classes of stock placed on the list was signed by Robert D. Evans, president, and Charles R. Flint, treasurer. The amounts are $12,942,500 of 8 per cent. noncumulative preferred and $13,481,100 common capital stock. In the application it is stated that according to the appraisal of the properties which are embraced in the United States Rubber Co. the value of the real estate plants, machinery, tools, fixtures, and lasts is $5,055,000, and the other assets, consisting of accounts and bills receivable, and manufactured goods, as determined by expert accountants and guaranteed by the manufacturers, amount to $6,491,900. From the statement of the accountants it appears that the average profits per annum for the past ten years of the nine companies already named as forming the United States Rubber Co. were $959,499.49, and the aggregate profits of this company for the past year were $1,181,186.65, or more than sufficient to pay the dividend on the present issue of preferred stock. It is said in addition that the value of the plants as appraised, including the value of the Pará plant, together with the assets as certified to and the cash working capital of the company, is equal to the total issue of the preferred stock, without consideration of good will, trade-marks or other assets. Any increase of stock other than the amount now applied for to be listed can only be issued full-paid for cash, or for property acquired under the laws of New Jersey. The first dealing in preferred stock occurred on December 15, and the following table shows the fluctuations of both common and preferred stock since the last report in this paper, together with the number of shares dealt in daily:

	Common.			Preferred.		
Dates.	Sales.	Highest.	Lowest.	Sales.	Highest.	Lowest.
Dec. 1.....	710	39¼	39	....	....	....
Dec. 2.....	525	39½	39⅜	....	....	....
Dec. 3.....	535	40	39½	....	....	....
Dec. 5	2,519	43½	40	....	....	....
Dec. 6.....	1,400	45	42½	...	....	....
Dec. 7	200	43½	43¼	....	....	....
Dec. 8.....	150	43⅝	43½	....	....	...
Dec. 9... ...	200	44	43¾	...	...	....
Dec. 12	474	43¾	43	....	....	....
Dec. 13.....	599	43½	43	....	....	....
Dec. 14.....	490	44½	44	...	....	...
Dec. 15.....	1,418	45	42½	430	99	97½
Dec. 16.....	1,283	42⅝	41	535	97	96
Dec. 17.	305	41¼	41	103	05½	95½
Dec. 19.....	1,520	41	39½	120	96	96
Dec. 20.....	810	41¾	39½	110	94½	94½
Dec. 21.....	703	41½	40	100	95	95
Dec. 22	240	40	40	350	95	93⅝
Dec. 27.....	62	39	39	162	95	95
Dec. 28.....	120	40	40	65	95¾	94½
Dec. 29.....	....	....	...	232	95½	95½
Dec. 30...	330	48¼	48¼	....	..	....
Dec. 31.....	1,350	46¼	43¼	400	98	97
Jan. 3.....	878	46	45	1,666	99	98
Jan. 4.....	85	45	45	100	98	98
Jan. 6	100	43½	45½	262	97	96
Jan. 7.....	....	....	...	266	95	95
Jan. 9.... ...	582	43½	43	466	95	94⅛
Jan. 11..... .	100	43½	43½	110	95	95

On December 16 a block of 100 shares of common stock was offered on the New York Consolidated Stock and Petroleum Exchange, selling at 42¼.

In the somewhat enigmatical parlance of Wall street the stock of the United States Rubber Co. is known as RU. It would be impossible for the ticker to spell out on the tape the full names of the different stocks. Every possible abbreviation is adopted to save time. For instance W stands for Western Union Telegraph, U for Union Pacific, NPR for Northern Pacific preferred and ST for Chicago, Milwaukee and St. Paul. A large proportion of the sales of stocks are in lots of 100 shares. When there is a sale of 100 shares of Rubber stock it appears on the tape thus: RU 43⅛—or whatever the price may be. If the number of shares sold is more or less than 100 then it is given in this way: 500 RU 43⅛ or 25 RU 43⅛. For convenience brokers have certificates of stocks split up into lots of 100. The abbreviation of the stock and the price alone always mean that the transaction involved 100 shares.

The principal trading in Rubber has been in the common stock. The word "common" is never used in announcing a sale. When there are dealings in Rubber preferred stock they appear on the tape as RU PR. If there are two classes of stock a transaction is known to be in the common when the PR is not added. This is another time-saving arrangement in reporting quotations on the "ticker."

* * *

THE SITUATION IN PARA.

[*By the Steamer "Lanfranc."*]

TO THE EDITOR OF THE INDIA RUBBER WORLD: The rubber season has been late in opening this year, but may now be considered to be fairly on. The receipts at and shipments from Pará are, unquestionably, diminished by the growing importance of Manáos as a point for direct handling. It monopolizes much of the exportation to Europe of the product of the Alta Amazon and affluents, and when, as is now quite likely, there shall be some American branch-houses established there, the United States will get much more of the Manáos shipments than they now do. The following statistical showing covers the movements of rubber from this port for the current month:

	TONS.
Stock, all grades, in first and second hands, December 1, 1892..	556
Receipts in December.....	1,629
Total stock to date.....	2,185
SHIPMENTS.	
Dec. 3.—By the *Obidense* (Europe).....	277
Dec. 6.—By the *Cyril* (United States).....	185
Dec. 7.—By the *Seguranca* (United States).....	97
Dec. 10.—By the *Gregory* (United States).....	154
Dec. 20.—By the *Lanfranc* (Europe).....	590
Dec. 24.—By the *Amazonense* (United States).....	371 = 1,674
Stock remaining, all grades.....	511

Of course these are not exact, but closely approximating, figures. The tone of the market here is firm. Island rubber has advanced in the past few days from 3.600 to 3.850 milreis for fine and from 1.850 to 2.100 for coarse. The product of the interior has increased from 3.750 and 2.000 to 4.200 and 2.700. Rubber is stiff at the latter prices, and probably will be shipped on sale by holders, rather than recede from these prices. There will not remain probably more than about 150 tons in first hands of the different qualities. The closing of the calendar year will bring a general summing up, but its results will be too late for transmittal to you by this mail, or for your January issue.

ARGUS.

Pará, Brazil, December 24, 1892.

[*By Cable.*]

PARA, January 12.—Receipts for the month to date 340 tons. Islands rubber is quoted at 4.100 for fine and 2.350 for coarse. Exchange is at 13⅜d. The *Hondo* sailed with 22 tons.

IMPORTS FROM PARA.

THE imports in detail of rubber direct from Pará at the port of New York, since our last report, have been as follows:

December 18.—By the steamer *Seguranca* from Pará:

	Fine.	Medium.	Coarse.	Caucho.	Total.
New York Commercial Co.	104,100	15,000	47,600	1,700	168,400
Reimers & Meyer	17,100	12,100	3,000	.....	32,200
Total	121,200	27,100	50,600	1,700	200,600

December 19.—By the steamer *Cyril* from Manáos and Pará:

Joseph Banigan	68,500	21,800	27,800	.....	118,100
Reimers & Meyer	31,000	17,100	26,400	.....	74,500
Lawrence, Johnson & Co.	24,300	4,300	33,700	.....	62,300
Boston Rubber Shoe Co.	31,100	7,900	22,200	900	62,100
New York Commercial Co.	32,600	3,900	6,300	.....	42,800
W. R. Grace & Co.	12,500	900	8,900	.....	22,300
Total	200,000	55,900	125,300	900	382,100

December 25.—By the steamer *Gregory* from Pará:

Shipton Green	62,300	3,100	12,400	.....	77,800
New York Commercial Co.	38,900	5,700	15,600	.....	60,200
Reimers & Meyer	31,300	7,800	10,200	300	50,100
Joseph Banigan	28,200	3,900	14,400	.....	46,500
Sears & Co.	26,100	2,500	7,800	.....	36,400
Boston Rubber Shoe Co.	15,400	1,400	6,000	.....	22,800
Lawrence, Johnson & Co.	11,800	7,500	3,400	.....	22,700
W. R. Grace & Co.	2,900	300	600	.....	3,800
Total	217,400	32,200	70,400	300	320,300

January 8.—By the steamer *Amazonense* from Pará:

New York Commercial Co.	274,900	68,200	111,500	.....	454,600
Joseph Banigan	96,400	31,400	44,400	16,200	188,400
Boston Rubber Shoe Co.	81,800	24,600	34,800	32,800	174,000
Reimers & Meyer	76,800	3,900	59,200	32,300	172,200
C. Ahrenfelt & Son	9,600	.....	26,200	63,800	99,600
Shipton Green	38,000	10,200	13,800	.....	62,000
Sears & Co	21,000	2,800	7,800	.....	31,600
Lawrence, Johnson & Co.	14,300	2,500	5,400	.....	22,200
P. Lima	1,900	.....	600	.....	2,500
Totals	614,700	143,600	303,700	145,100	1,207,100

IMPORTS OF CENTRALS.

BELOW will be found in detail the imports at New York, during December, 1892, of India-rubber from Mexico, Central America, and South America, other than Pará grades:

DEC. 4.—By the *Alvena*=Port Limon:

	POUNDS.
Ellinger Brothers	300

DEC. 4.—By the *Panama*=Vera Cruz:

Theodore Hermann	300

DEC. 5.—By the *Orizaba*=Vera Cruz:

Graham, Hinckley & Co.	210
Thebaud Brothers	330
Total	540

DEC. 6.—By the *Argonaut*=Central America:

Eggers & Heinlein (Livingston)	200
A. S. Lascelles & Co. (Porto Cortez)	225
J. C. Wapperman (Greytown)	1,150
Munoz & Esprella (Greytown)	300
A. P. Strout (Greytown)	3,600
Total	5,475

DEC. 8.—By the *Colombia*=Colon:

A. N. Rotholz	660
G. Amsinck & Co. (Panama)	5,300
[Ex *Esequiba*=Greytown.]	
A. P. Strout	1,602
[Ex *Quito*=South Pacific.]	
Andreas & Co	6,350
W. R. Grace & Co	6,129
J. M. Ceballos & Co	1,010
G. Amsinck & Co	10,824
Munoz & Esprella	2,810
Asencio & Cossis	3,036
J. Ferro	933
[Ex *Aconcagua*=South Pacific.]	
New York Commercial Co	11,900
Jacob Balz	1,500
[Ex *San Juan*=Central America.]	
J. Aparicio & Co	954
[Ex *Colonia*=Mexico.]	
H. Marquand & Co	330
W. Louiza & Co	6,135
[Ex *Colima*=Central America.]	
J. Aparicio	2,057
Hoadley & Co	1,054
Flint & Co	936
Pomares & Cushman	308
Total	62,837

DEC. 8.—By the *Carib*=Truxillo:

Eggers & Heinlein	600
J. Agostini	200
Otto Mayer & Co	600
A. S. Lascelles & Co	350
Total	1,600

DEC. 8.—By the *Athos*=Carthagena:

Kugelmann & Co	350
W. R. Grace & Co	3,600
Total	3,950

DEC. 8.—By the *Alliance*=Pará:

J. H. Rossbach Brothers (Pernambuco)	600

DEC. 15.—By the *Ciudad Condal*=Vera Cruz:

Graham, Hinckley & Co.	1,600

DEC. 20.—By the *City of Pará*=Colon:

Eggers & Heinlein	357
G. Amsinck & Co. (Panama)	2,585
J. Agostini (Panama)	905
Piza, Nephews & Co. (Panama)	5,140
Hoadley & Co. (Panama)	1,900
[Ex *Starbuck*=Central American Ports.]	
J. Aparicio & Co	9,485
J. M. Ceballos & Co	1,215
Jacob Balz	1,145
Munoz & Esprella	510
Joseph S. Spenney	1,800
Flint & Co	4,143
W. R. Grace & Co	1,000
Ellinger Brothers	960
[Ex *Quito*=South Pacific Ports.]	
W. R. Grace & Co	2,256
G. Amsinck & Co	12,895
Andreas & Co	1,480
J. M. Ceballos & Co	1,155
W. R. Grace & Co.	1,920
J. Meeke	605
C. Roldan & Van Sickel	3,685
To Order	1,495
[Ex *Puno*=South Pacific Ports.]	
J. M. Ceballos & Co	9,107
To Order	3,285
[Ex *Mapocho*=Southern Pacific Ports.]	
Herzel, Feltman & Co	2,005
To Order	2,830
Total	74,922

DEC. 22.—By the *Yumuri*=Mexico:

Louis Montjo, Jr. & Co. (Tuxpan)	300
P. A. Forrest & Co. (Tuxpan)	300
Graham, Hinckley & Co. (Vera Cruz)	550
Total	1,150

DEC. 25.—By the *Alene*=Cartagena:

J. Ferro	3,000
G. Amsinck & Co	200
C. Roldan & Van Sickel	1,600
W. R. Grace & Co	7,000
H. W. Peabody & Co	500
Total	12,300

DEC. 29.—By the *Jason*=Greytown:

A. P. Strout	4,150
Hoadley & Co	1,750
Munoz & Esprella	4,000
Otto G. Meyer & Co (Cape Gracios)	1,900
Eggers & Heinlein (Livingston)	450
Total	12,250

DEC. 29.—By the *Leona*=Colon:

G. Amsinck & Co. (Panama)	4,180
A. N. Rotholz (Panama)	400
[Ex *Pizarro*=South Pacific Ports.]	
J. M. Ceballos & Co.	9,500
To Order	2,100
[Ex *San Blas*=Central America.]	
H. Marquand & Co	78
[Ex *Costa Rica*=Central America.]	
Munoz & Esprella	572
C. Roldan & Van Sickel	1,855
Lanman & Kemp	565
Munoz & Esprella	3,239
Pardo, Velasco & Co	423
S. Samper & Co.	534
Hoadley & Co	2,116
Munoz & Esprella	2,679
A. P. Strout	1,354
Marcial & Co	540
Flint & Co	513
Total	30,747

DEC. 29.—By the *Yucatan*=Mexico:

L. Montjo & Co. (Tuxpan)	250
Seeger, Guernsey & Co. (Tuxpan)	275
Total	525

Dec. 29.—By the *Regna*=Pernambuco:

Lawrence, Johnson & Co	750

Total imports of Centrals	208,196
Total for November	297,100
Total for October	207,715
Total for September	140,783

BOSTON ARRIVALS—ALL GRADES.

	POUNDS.
DEC. 1.—By the *Borderer*=London:	
Reimers & Meyer, Africans	40,000
George A. Alden & Co., Madagascar	5,300
DEC. 1.—By the *Kansas*=Liverpool:	
Reimers & Meyer, Pará, fine	11,000
George A. Alden & Co., Pará, fine	22,000
DEC. 3.—By the *Mandarin*=Tuxpan:	
P. Harmony's Nephews & Co., Mexicans	120
DEC. 6.—By the *Georgian*=Liverpool:	
Joseph Banigan, Africans	26,000
DEC. 8.—By the *Roman*=Liverpool:	
Reimers & Meyer, Pará	11,000
Africans	3,000
George A. Alden & Co., Africans	10,300
DEC. 12.—By the *Milanese*=London:	
George A. Alden & Co. Caucho	3,400
DEC. 12.—By the *Apholonia*=Liverpool:	
Woonsocket Rubber Co., African thimbles	25,000
DEC. 14.—By the *Ottoman*=Liverpool:	
Reimers & Meyer, Africans	6,000
DEC. 23.—By the *Melbourne*=London:	
Reimers & Meyer, Africans	24,000
Ropes, Emmerton & Co., Madagascar	5,200
DEC. 26.—By the *Michigan*=Liverpool:	
Reimers & Meyer, Pará	14,000
Africans	27,000
George A. Alden & Co., Africans	11,000
DEC. 28.—By the *Catalonia*=Liverpool:	
Reimers & Meyer, Pará	7,000
George A. Alden & Co.	5,800
Total Pará	68,000
Total Africans, etc	190,120
Grand Total	258,120
Total Boston Imports, November	297,100
Total for October	100,650

PHILADELPHIA ARRIVALS.

[*December*, 1892.]

	POUNDS.	VALUE.
Gutta-percha (East Indies)	2,330	$1,018
Pará rubber	3,296	1,633